

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-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-125D-830-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

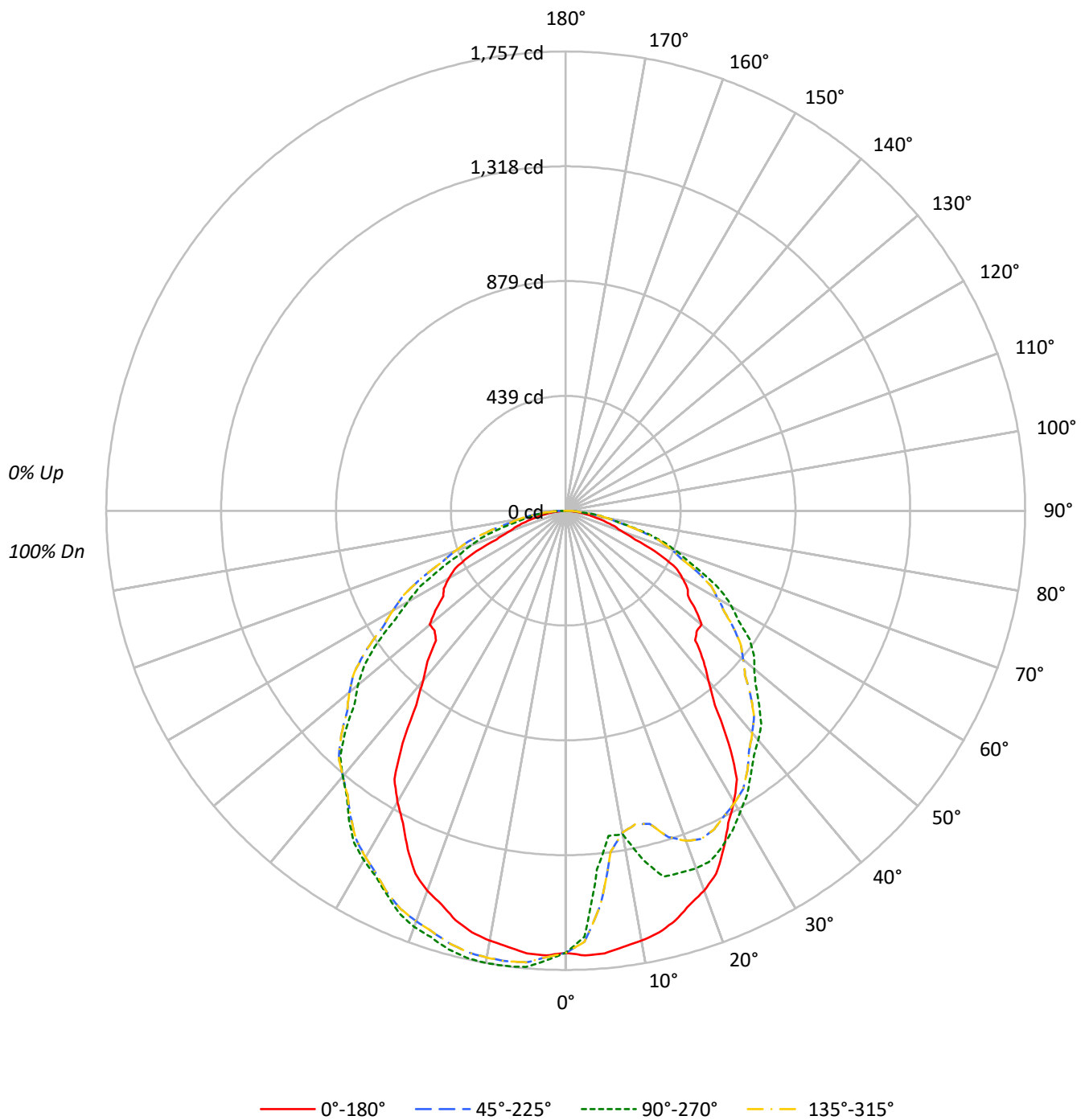
Lumens per Lamp: N/A
Luminaire Lumens: 4383.0 lumens
Efficiency: N/A
Efficacy: 100.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

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				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°	15605	15605	15605	15605
5°	15739	12759	15739	16228
10°	15651	11768	15651	16461
15°	15499	13847	15499	16584
20°	15193	14296	15193	16638
25°	14546	14432	14546	16485
30°	13706	14200	13706	16451
35°	12237	13895	12237	16274
40°	10214	13799	10214	15976
45°	9145	13634	9145	15533
50°	9739	13505	9739	14883
55°	9190	13796	9190	14131
60°	9509	13524	9509	12845
65°	8663	12926	8663	11564
70°	6043	12128	6043	10315
75°	5361	10723	5361	8955
80°	4421	8331	4421	7651
85°	2710	5759	2710	6775

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 15867 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	152.5	3.5
10°-20°	433.3	9.9
20°-30°	669.6	15.3
30°-40°	800.0	18.3
40°-50°	805.2	18.4
50°-60°	699.1	16.0
60°-70°	494.9	11.3
70°-80°	261.7	6.0
80°-90°	66.6	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°	1255.4	28.6
0°-40°	2055.5	46.9
0°-60°	3559.8	81.2
0°-90°	4383.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4383.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1691	1691	1691	1691	1691	
5°	1699	1378	1699	1752	1699	161
15°	1623	1450	1623	1736	1623	456
25°	1429	1418	1429	1619	1429	655
35°	1086	1234	1086	1445	1086	671
45°	701	1045	701	1190	701	564
55°	571	858	571	878	571	526
65°	397	592	397	530	397	378
75°	150	301	150	251	150	159
85°	26	54	26	64	26	37
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°	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4
2.5°	1702.9	1690.1	1685.0	1674.7	1655.5	1645.3	1653.0	1640.2	1645.3	1631.2	1645.3
5°	1699.4	1670.6	1646.6	1606.6	1549.0	1481.8	1465.7	1424.1	1398.5	1377.7	1398.5
7.5°	1683.4	1634.1	1560.8	1438.5	1340.3	1292.3	1280.5	1268.6	1265.4	1254.8	1265.4
10°	1670.6	1603.4	1467.3	1329.7	1260.9	1238.5	1243.3	1248.1	1257.7	1256.1	1257.7
12.5°	1652.6	1549.6	1370.1	1274.7	1228.9	1228.3	1263.8	1327.5	1371.7	1368.8	1371.7
15°	1622.6	1446.5	1278.5	1217.7	1203.3	1276.9	1406.5	1436.9	1448.1	1449.7	1448.1
17.5°	1579.4	1345.7	1220.0	1180.0	1228.9	1388.9	1428.3	1442.1	1451.7	1452.3	1451.7
20°	1547.4	1294.5	1190.5	1163.3	1292.9	1395.3	1419.3	1436.9	1452.9	1456.1	1452.9
22.5°	1503.8	1258.7	1159.8	1151.8	1328.8	1388.9	1410.4	1436.9	1450.4	1449.7	1450.4
25°	1428.9	1214.5	1121.7	1139.3	1332.9	1355.3	1396.9	1414.5	1416.1	1417.7	1416.1
27.5°	1346.7	1175.8	1077.2	1147.6	1307.0	1323.0	1367.8	1376.8	1382.9	1380.3	1382.9
30°	1286.5	1148.9	1046.5	1148.9	1286.5	1296.1	1340.9	1347.3	1339.3	1332.9	1339.3
32.5°	1218.7	1115.6	1017.1	1140.0	1255.8	1269.2	1305.1	1302.5	1294.5	1289.4	1294.5
35°	1086.5	1059.3	963.3	1110.5	1203.3	1220.9	1241.7	1240.1	1238.5	1233.7	1238.5
37.5°	937.7	992.7	910.2	1064.7	1152.8	1151.5	1182.5	1189.2	1187.6	1181.6	1187.6
40°	848.1	937.7	876.9	1028.9	1116.9	1104.1	1144.1	1152.1	1150.5	1145.7	1150.5
42.5°	781.5	864.7	838.5	985.4	1073.4	1058.0	1107.0	1115.0	1110.8	1107.3	1110.8
45°	700.9	715.3	779.3	915.3	1000.1	998.5	1051.3	1059.3	1049.7	1044.9	1049.7
47.5°	679.7	576.7	714.6	834.0	927.5	933.5	990.2	997.2	988.6	984.4	988.6
50°	678.5	508.9	667.3	771.3	880.1	891.3	950.5	953.7	942.5	940.9	942.5
52.5°	628.5	470.4	612.2	716.2	839.1	852.9	907.0	906.3	905.4	907.6	905.4
55°	571.3	424.0	516.9	635.3	776.1	793.7	841.7	843.3	854.5	857.7	854.5
57.5°	552.4	371.6	428.5	565.2	712.7	726.5	771.6	775.4	783.1	782.8	783.1
60°	515.3	334.4	376.0	521.7	664.1	681.7	721.7	728.1	734.5	732.9	734.5
62.5°	476.8	308.8	350.4	485.8	618.0	636.9	664.1	675.6	678.1	675.3	678.1
65°	396.8	275.2	310.4	428.8	547.3	568.1	585.7	593.7	595.3	592.1	595.3
67.5°	286.7	244.2	279.1	372.5	466.0	489.3	499.6	504.4	502.8	508.5	502.8
70°	224.0	222.4	256.0	332.8	416.0	436.8	443.2	448.0	446.4	449.6	446.4
72.5°	193.3	204.5	231.7	291.9	359.7	380.5	384.4	385.3	390.1	386.9	390.1
75°	150.4	174.4	192.0	230.4	281.6	296.0	297.6	299.2	296.0	300.8	296.0
77.5°	105.0	132.8	148.5	170.6	205.1	214.1	213.8	214.7	212.2	211.9	212.2
80°	83.2	100.8	115.2	129.6	155.2	161.6	160.0	158.4	158.4	156.8	158.4
82.5°	61.4	71.4	84.5	95.0	111.7	113.0	115.2	112.3	112.3	114.6	112.3
85°	25.6	33.6	43.2	48.0	54.4	56.0	52.8	57.6	54.4	54.4	54.4
87.5°	6.4	10.2	15.4	17.9	19.2	17.9	17.9	15.4	15.4	15.4	15.4
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°	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4
2.5°	1640.2	1653.0	1645.3	1655.5	1674.7	1685.0	1690.1	1702.9	1702.9	1710.6	1713.1
5°	1424.1	1465.7	1481.8	1549.0	1606.6	1646.6	1670.6	1699.4	1712.2	1729.8	1736.2
7.5°	1268.6	1280.5	1292.3	1340.3	1438.5	1560.8	1634.1	1683.4	1709.3	1732.3	1741.6
10°	1248.1	1243.3	1238.5	1260.9	1329.7	1467.3	1603.4	1670.6	1704.2	1729.8	1737.8
12.5°	1327.5	1263.8	1228.3	1228.9	1274.7	1370.1	1549.6	1652.6	1696.5	1720.8	1730.1
15°	1436.9	1406.5	1276.9	1203.3	1217.7	1278.5	1446.5	1622.6	1677.0	1699.4	1713.8
17.5°	1442.1	1428.3	1388.9	1228.9	1180.0	1220.0	1345.7	1579.4	1648.5	1675.1	1687.9
20°	1436.9	1419.3	1395.3	1292.9	1163.3	1190.5	1294.5	1547.4	1624.2	1654.6	1667.4
22.5°	1436.9	1410.4	1388.9	1328.8	1151.8	1159.8	1258.7	1503.8	1598.6	1630.2	1643.0
25°	1414.5	1396.9	1355.3	1332.9	1139.3	1121.7	1214.5	1428.9	1557.0	1584.2	1603.4
27.5°	1376.8	1367.8	1323.0	1307.0	1147.6	1077.2	1175.8	1346.7	1499.7	1538.4	1559.2
30°	1347.3	1340.9	1296.1	1286.5	1148.9	1046.5	1148.9	1286.5	1449.7	1502.6	1529.8
32.5°	1302.5	1305.1	1269.2	1255.8	1140.0	1017.1	1115.6	1218.7	1375.5	1465.4	1497.8
35°	1240.1	1241.7	1220.9	1203.3	1110.5	963.3	1059.3	1086.5	1284.9	1412.9	1440.1
37.5°	1189.2	1182.5	1151.5	1152.8	1064.7	910.2	992.7	937.7	1203.0	1357.6	1377.4
40°	1152.1	1144.1	1104.1	1116.9	1028.9	876.9	937.7	848.1	1124.9	1315.3	1331.3
42.5°	1115.0	1107.0	1058.0	1073.4	985.4	838.5	864.7	781.5	1039.1	1270.5	1275.0
45°	1059.3	1051.3	998.5	1000.1	915.3	779.3	715.3	700.9	988.9	1198.5	1198.5
47.5°	997.2	990.2	933.5	927.5	834.0	714.6	576.7	679.7	918.5	1121.1	1120.4
50°	953.7	950.5	891.3	880.1	771.3	667.3	508.9	678.5	867.3	1054.5	1070.5
52.5°	906.3	907.0	852.9	839.1	716.2	612.2	470.4	628.5	804.6	968.7	1019.3
55°	843.3	841.7	793.7	776.1	635.3	516.9	424.0	571.3	707.3	849.7	934.5
57.5°	775.4	771.6	726.5	712.7	565.2	428.5	371.6	552.4	556.2	740.9	849.0
60°	728.1	721.7	681.7	664.1	521.7	376.0	334.4	515.3	425.6	664.1	782.5
62.5°	675.6	664.1	636.9	618.0	485.8	350.4	308.8	476.8	332.2	577.0	718.5
65°	593.7	585.7	568.1	547.3	428.8	310.4	275.2	396.8	259.2	395.2	624.1
67.5°	504.4	499.6	489.3	466.0	372.5	279.1	244.2	286.7	197.1	250.9	534.1
70°	448.0	443.2	436.8	416.0	332.8	256.0	222.4	224.0	140.8	185.6	475.2
72.5°	385.3	384.4	380.5	359.7	291.9	231.7	204.5	193.3	119.1	145.9	415.1
75°	299.2	297.6	296.0	281.6	230.4	192.0	174.4	150.4	120.0	104.0	324.8
77.5°	214.7	213.8	214.1	205.1	170.6	148.5	132.8	105.0	107.2	79.0	243.2
80°	158.4	160.0	161.6	155.2	129.6	115.2	100.8	83.2	88.0	62.4	185.6
82.5°	112.3	115.2	113.0	111.7	95.0	84.5	71.4	61.4	62.4	49.6	138.3
85°	57.6	52.8	56.0	54.4	48.0	43.2	33.6	25.6	32.0	28.8	68.8
87.5°	15.4	17.9	17.9	19.2	17.9	15.4	10.2	6.4	11.5	14.1	28.2
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4	1691.4
2.5°	1709.3	1709.3	1720.8	1723.4	1725.9	1722.1	1725.9	1723.4	1720.8	1709.3	1709.3
5°	1734.6	1734.6	1750.6	1755.4	1755.4	1752.2	1755.4	1755.4	1750.6	1734.6	1734.6
7.5°	1736.8	1739.4	1755.4	1758.9	1761.8	1757.0	1761.8	1758.9	1755.4	1739.4	1736.8
10°	1733.0	1739.4	1755.4	1760.2	1761.8	1757.0	1761.8	1760.2	1755.4	1739.4	1733.0
12.5°	1727.9	1733.0	1749.0	1752.5	1755.4	1751.9	1755.4	1752.5	1749.0	1733.0	1727.9
15°	1710.6	1717.0	1734.6	1737.8	1741.0	1736.2	1741.0	1737.8	1734.6	1717.0	1710.6
17.5°	1686.6	1694.6	1710.6	1715.7	1717.3	1711.2	1717.3	1715.7	1710.6	1694.6	1686.6
20°	1667.4	1675.4	1691.4	1697.8	1699.4	1694.6	1699.4	1697.8	1691.4	1675.4	1667.4
22.5°	1643.0	1656.2	1670.9	1673.5	1671.2	1666.4	1671.2	1673.5	1670.9	1656.2	1643.0
25°	1608.2	1619.4	1624.2	1624.2	1624.2	1619.4	1624.2	1624.2	1624.2	1619.4	1608.2
27.5°	1563.7	1569.4	1572.3	1574.9	1578.1	1574.9	1578.1	1574.9	1572.3	1569.4	1563.7
30°	1533.0	1529.8	1537.8	1544.2	1547.4	1544.2	1547.4	1544.2	1537.8	1529.8	1533.0
32.5°	1490.7	1492.6	1504.5	1508.3	1509.0	1505.8	1509.0	1508.3	1504.5	1492.6	1490.7
35°	1428.9	1436.9	1444.9	1448.1	1449.7	1444.9	1449.7	1448.1	1444.9	1436.9	1428.9
37.5°	1363.7	1377.7	1383.5	1380.0	1380.3	1375.2	1380.3	1380.0	1383.5	1377.7	1363.7
40°	1320.1	1332.9	1336.1	1331.3	1332.9	1326.5	1332.9	1331.3	1336.1	1332.9	1320.1
42.5°	1279.2	1289.4	1286.2	1280.1	1279.2	1276.6	1279.2	1280.1	1286.2	1289.4	1279.2
45°	1211.3	1216.1	1201.7	1196.9	1193.7	1190.5	1193.7	1196.9	1201.7	1216.1	1211.3
47.5°	1137.1	1130.7	1116.9	1109.6	1100.6	1094.5	1100.6	1109.6	1116.9	1130.7	1137.1
50°	1089.7	1070.5	1059.3	1041.7	1035.3	1036.9	1035.3	1041.7	1059.3	1070.5	1089.7
52.5°	1032.1	1009.1	991.5	976.4	971.3	970.3	971.3	976.4	991.5	1009.1	1032.1
55°	948.9	913.7	884.9	876.9	875.3	878.5	875.3	876.9	884.9	913.7	948.9
57.5°	846.8	812.2	788.6	782.2	776.7	771.6	776.7	782.2	788.6	812.2	846.8
60°	777.7	745.7	723.3	716.9	702.5	696.1	702.5	716.9	723.3	745.7	777.7
62.5°	716.2	677.8	660.5	647.7	637.2	626.9	637.2	647.7	660.5	677.8	716.2
65°	627.3	582.5	564.9	553.7	534.5	529.7	534.5	553.7	564.9	582.5	627.3
67.5°	530.0	490.9	468.8	453.8	441.6	441.3	441.6	453.8	468.8	490.9	530.0
70°	467.2	432.0	411.2	393.6	384.0	382.4	384.0	393.6	411.2	432.0	467.2
72.5°	405.8	371.9	353.6	337.3	329.0	327.4	329.0	337.3	353.6	371.9	405.8
75°	318.4	286.4	272.0	260.8	254.4	251.2	254.4	260.8	272.0	286.4	318.4
77.5°	235.5	209.6	202.3	190.7	185.3	185.0	185.3	190.7	202.3	209.6	235.5
80°	185.6	164.8	153.6	147.2	145.6	144.0	145.6	147.2	153.6	164.8	185.6
82.5°	134.4	122.6	115.2	111.4	111.1	108.2	111.1	111.4	115.2	122.6	134.4
85°	72.0	68.8	67.2	65.6	64.0	64.0	64.0	65.6	67.2	68.8	72.0
87.5°	29.4	30.7	30.7	32.0	33.3	32.0	33.3	32.0	30.7	30.7	29.4
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-830-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1691.4	1691.4	1691.4	1691.4
2.5°	1713.1	1710.6	1702.9	1702.9
5°	1736.2	1729.8	1712.2	1699.4
7.5°	1741.6	1732.3	1709.3	1683.4
10°	1737.8	1729.8	1704.2	1670.6
12.5°	1730.1	1720.8	1696.5	1652.6
15°	1713.8	1699.4	1677.0	1622.6
17.5°	1687.9	1675.1	1648.5	1579.4
20°	1667.4	1654.6	1624.2	1547.4
22.5°	1643.0	1630.2	1598.6	1503.8
25°	1603.4	1584.2	1557.0	1428.9
27.5°	1559.2	1538.4	1499.7	1346.7
30°	1529.8	1502.6	1449.7	1286.5
32.5°	1497.8	1465.4	1375.5	1218.7
35°	1440.1	1412.9	1284.9	1086.5
37.5°	1377.4	1357.6	1203.0	937.7
40°	1331.3	1315.3	1124.9	848.1
42.5°	1275.0	1270.5	1039.1	781.5
45°	1198.5	1198.5	988.9	700.9
47.5°	1120.4	1121.1	918.5	679.7
50°	1070.5	1054.5	867.3	678.5
52.5°	1019.3	968.7	804.6	628.5
55°	934.5	849.7	707.3	571.3
57.5°	849.0	740.9	556.2	552.4
60°	782.5	664.1	425.6	515.3
62.5°	718.5	577.0	332.2	476.8
65°	624.1	395.2	259.2	396.8
67.5°	534.1	250.9	197.1	286.7
70°	475.2	185.6	140.8	224.0
72.5°	415.1	145.9	119.1	193.3
75°	324.8	104.0	120.0	150.4
77.5°	243.2	79.0	107.2	105.0
80°	185.6	62.4	88.0	83.2
82.5°	138.3	49.6	62.4	61.4
85°	68.8	28.8	32.0	25.6
87.5°	28.2	14.1	11.5	6.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)