

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-100D-840-1D-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-100D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

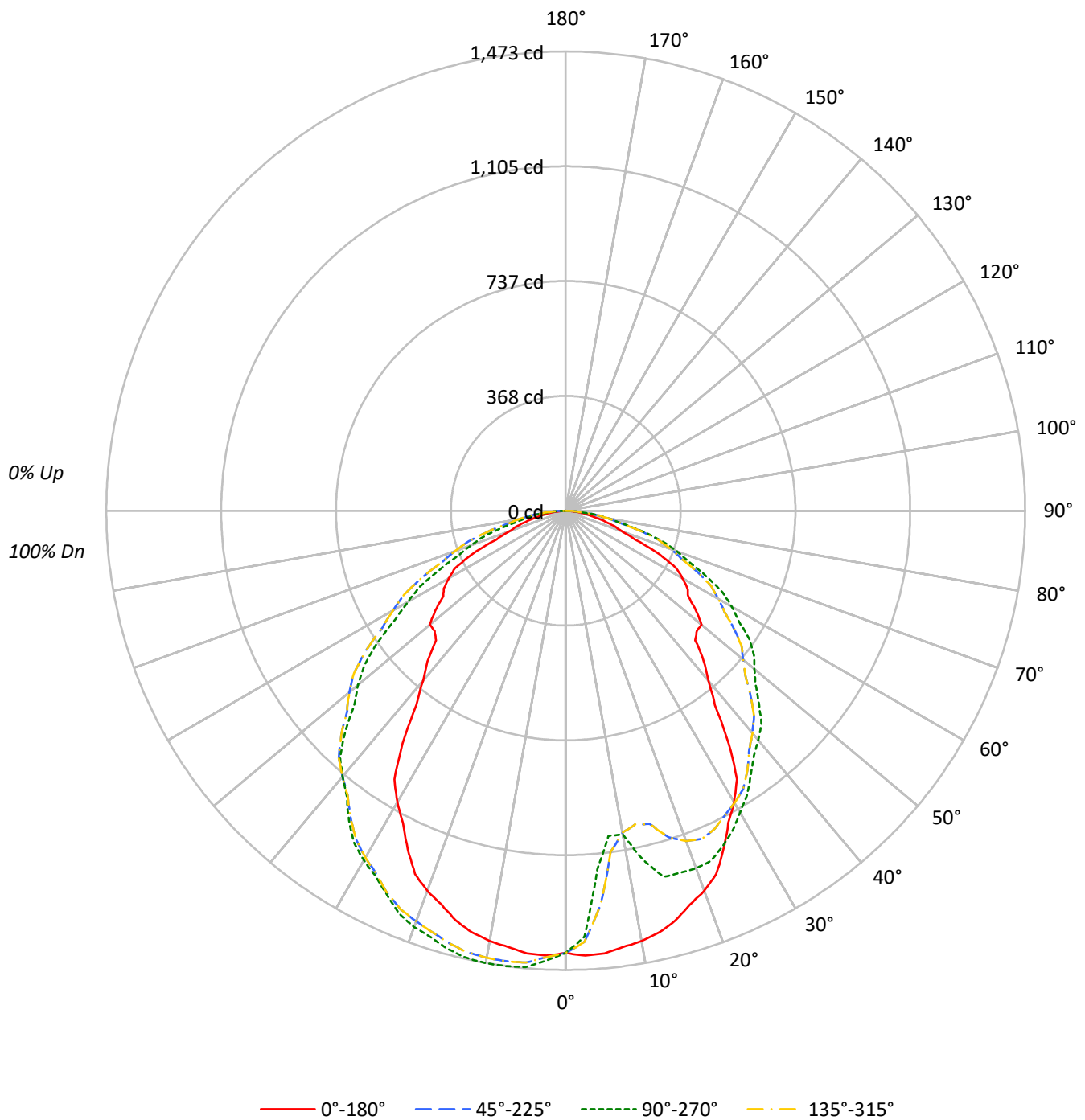
Lumens per Lamp: N/A
Luminaire Lumens: 3675.6 lumens
Efficiency: N/A
Efficacy: 112.1 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 32.8
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°	13086	13086	13086	13086
5°	13198	10701	13198	13609
10°	13125	9869	13125	13804
15°	12997	11613	12997	13907
20°	12740	11989	12740	13953
25°	12199	12103	12199	13824
30°	11494	11908	11494	13795
35°	10263	11653	10263	13648
40°	8566	11572	8566	13398
45°	7670	11434	7670	13027
50°	8167	11325	8167	12482
55°	7707	11570	7707	11850
60°	7973	11341	7973	10771
65°	7265	10839	7265	9697
70°	5069	10173	5069	8651
75°	4495	8994	4495	7511
80°	3709	6987	3709	6418
85°	2276	4827	2276	5685

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 13307 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	127.9	3.5
10°-20°	363.4	9.9
20°-30°	561.6	15.3
30°-40°	670.9	18.3
40°-50°	675.3	18.4
50°-60°	586.3	16.0
60°-70°	415.0	11.3
70°-80°	219.5	6.0
80°-90°	55.8	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°	1052.8	28.6
0°-40°	1723.7	46.9
0°-60°	2985.3	81.2
0°-90°	3675.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3675.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1418	1418	1418	1418	1418	
5°	1425	1155	1425	1469	1425	135
15°	1361	1216	1361	1456	1361	383
25°	1198	1189	1198	1358	1198	550
35°	911	1035	911	1212	911	563
45°	588	876	588	998	588	473
55°	479	719	479	737	479	441
65°	333	496	333	444	333	317
75°	126	252	126	211	126	133
85°	22	46	22	54	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°	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4
2.5°	1428.1	1417.3	1413.0	1404.4	1388.3	1379.8	1386.2	1375.5	1379.8	1367.9	1379.8
5°	1425.1	1401.0	1380.8	1347.3	1299.0	1242.6	1229.2	1194.3	1172.8	1155.4	1172.8
7.5°	1411.7	1370.4	1308.9	1206.4	1124.0	1083.7	1073.8	1063.9	1061.2	1052.3	1061.2
10°	1401.0	1344.6	1230.5	1115.1	1057.4	1038.6	1042.7	1046.7	1054.7	1053.4	1054.7
12.5°	1385.9	1299.5	1148.9	1069.0	1030.6	1030.1	1059.8	1113.2	1150.3	1147.9	1150.3
15°	1360.7	1213.1	1072.2	1021.2	1009.1	1070.8	1179.5	1205.0	1214.4	1215.8	1214.4
17.5°	1324.5	1128.5	1023.1	989.5	1030.6	1164.8	1197.8	1209.3	1217.4	1217.9	1217.4
20°	1297.6	1085.6	998.4	975.6	1084.3	1170.1	1190.3	1205.0	1218.5	1221.1	1218.5
22.5°	1261.1	1055.5	972.6	965.9	1114.3	1164.8	1182.8	1205.0	1216.3	1215.8	1216.3
25°	1198.3	1018.5	940.7	955.4	1117.8	1136.6	1171.5	1186.2	1187.6	1188.9	1187.6
27.5°	1129.4	986.0	903.4	962.4	1096.1	1109.5	1147.1	1154.6	1159.7	1157.5	1159.7
30°	1078.9	963.5	877.6	963.5	1078.9	1086.9	1124.5	1129.9	1123.2	1117.8	1123.2
32.5°	1022.0	935.6	852.9	956.0	1053.1	1064.4	1094.5	1092.3	1085.6	1081.3	1085.6
35°	911.2	888.3	807.8	931.3	1009.1	1023.9	1041.3	1040.0	1038.6	1034.6	1038.6
37.5°	786.4	832.5	763.3	892.9	966.7	965.6	991.7	997.3	996.0	990.9	996.0
40°	711.2	786.4	735.4	862.8	936.7	925.9	959.5	966.2	964.8	960.8	964.8
42.5°	655.4	725.2	703.2	826.3	900.2	887.3	928.3	935.0	931.6	928.6	931.6
45°	587.8	599.8	653.5	767.6	838.7	837.4	881.6	888.3	880.3	876.3	880.3
47.5°	570.0	483.6	599.3	699.4	777.8	782.9	830.4	836.3	829.0	825.5	829.0
50°	569.0	426.7	559.6	646.8	738.1	747.4	797.1	799.8	790.4	789.0	790.4
52.5°	527.1	394.5	513.4	600.6	703.7	715.2	760.6	760.1	759.3	761.1	759.3
55°	479.1	355.6	433.4	532.7	650.8	665.6	705.8	707.2	716.6	719.3	716.6
57.5°	463.2	311.6	359.4	474.0	597.7	609.2	647.1	650.3	656.7	656.5	656.7
60°	432.1	280.5	315.3	437.5	556.9	571.7	605.2	610.6	615.9	614.6	615.9
62.5°	399.9	259.0	293.9	407.4	518.2	534.1	556.9	566.6	568.7	566.3	568.7
65°	332.8	230.8	260.3	359.6	458.9	476.4	491.1	497.8	499.2	496.5	499.2
67.5°	240.5	204.8	234.0	312.4	390.8	410.4	418.9	423.0	421.6	426.5	421.6
70°	187.9	186.5	214.7	279.1	348.9	366.3	371.7	375.7	374.4	377.1	374.4
72.5°	162.1	171.5	194.3	244.8	301.7	319.1	322.3	323.1	327.2	324.5	327.2
75°	126.1	146.3	161.0	193.2	236.2	248.3	249.6	250.9	248.3	252.3	248.3
77.5°	88.0	111.4	124.5	143.0	172.0	179.5	179.3	180.1	177.9	177.7	177.9
80°	69.8	84.5	96.6	108.7	130.2	135.5	134.2	132.8	132.8	131.5	132.8
82.5°	51.5	59.8	70.9	79.7	93.7	94.7	96.6	94.2	94.2	96.1	94.2
85°	21.5	28.2	36.2	40.3	45.6	47.0	44.3	48.3	45.6	45.6	45.6
87.5°	5.4	8.6	12.9	15.0	16.1	15.0	15.0	12.9	12.9	12.9	12.9
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°	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4
2.5°	1375.5	1386.2	1379.8	1388.3	1404.4	1413.0	1417.3	1428.1	1428.1	1434.5	1436.6
5°	1194.3	1229.2	1242.6	1299.0	1347.3	1380.8	1401.0	1425.1	1435.8	1450.6	1456.0
7.5°	1063.9	1073.8	1083.7	1124.0	1206.4	1308.9	1370.4	1411.7	1433.4	1452.8	1460.5
10°	1046.7	1042.7	1038.6	1057.4	1115.1	1230.5	1344.6	1401.0	1429.1	1450.6	1457.3
12.5°	1113.2	1059.8	1030.1	1030.6	1069.0	1148.9	1299.5	1385.9	1422.7	1443.1	1450.9
15°	1205.0	1179.5	1070.8	1009.1	1021.2	1072.2	1213.1	1360.7	1406.3	1425.1	1437.2
17.5°	1209.3	1197.8	1164.8	1030.6	989.5	1023.1	1128.5	1324.5	1382.4	1404.7	1415.4
20°	1205.0	1190.3	1170.1	1084.3	975.6	998.4	1085.6	1297.6	1362.0	1387.5	1398.3
22.5°	1205.0	1182.8	1164.8	1114.3	965.9	972.6	1055.5	1261.1	1340.6	1367.1	1377.9
25°	1186.2	1171.5	1136.6	1117.8	955.4	940.7	1018.5	1198.3	1305.7	1328.5	1344.6
27.5°	1154.6	1147.1	1109.5	1096.1	962.4	903.4	986.0	1129.4	1257.6	1290.1	1307.6
30°	1129.9	1124.5	1086.9	1078.9	963.5	877.6	963.5	1078.9	1215.8	1260.1	1282.9
32.5°	1092.3	1094.5	1064.4	1053.1	956.0	852.9	935.6	1022.0	1153.5	1228.9	1256.0
35°	1040.0	1041.3	1023.9	1009.1	931.3	807.8	888.3	911.2	1077.6	1184.9	1207.7
37.5°	997.3	991.7	965.6	966.7	892.9	763.3	832.5	786.4	1008.8	1138.5	1155.1
40°	966.2	959.5	925.9	936.7	862.8	735.4	786.4	711.2	943.4	1103.1	1116.5
42.5°	935.0	928.3	887.3	900.2	826.3	703.2	725.2	655.4	871.4	1065.5	1069.2
45°	888.3	881.6	837.4	838.7	767.6	653.5	599.8	587.8	829.3	1005.1	1005.1
47.5°	836.3	830.4	782.9	777.8	699.4	599.3	483.6	570.0	770.3	940.1	939.6
50°	799.8	797.1	747.4	738.1	646.8	559.6	426.7	569.0	727.3	884.3	897.7
52.5°	760.1	760.6	715.2	703.7	600.6	513.4	394.5	527.1	674.7	812.4	854.8
55°	707.2	705.8	665.6	650.8	532.7	433.4	355.6	479.1	593.1	712.6	783.7
57.5°	650.3	647.1	609.2	597.7	474.0	359.4	311.6	463.2	466.4	621.3	712.0
60°	610.6	605.2	571.7	556.9	437.5	315.3	280.5	432.1	356.9	556.9	656.2
62.5°	566.6	556.9	534.1	518.2	407.4	293.9	259.0	399.9	278.6	483.9	602.5
65°	497.8	491.1	476.4	458.9	359.6	260.3	230.8	332.8	217.4	331.5	523.3
67.5°	423.0	418.9	410.4	390.8	312.4	234.0	204.8	240.5	165.3	210.4	447.9
70°	375.7	371.7	366.3	348.9	279.1	214.7	186.5	187.9	118.1	155.7	398.5
72.5°	323.1	322.3	319.1	301.7	244.8	194.3	171.5	162.1	99.8	122.4	348.1
75°	250.9	249.6	248.3	236.2	193.2	161.0	146.3	126.1	100.6	87.2	272.4
77.5°	180.1	179.3	179.5	172.0	143.0	124.5	111.4	88.0	89.9	66.3	204.0
80°	132.8	134.2	135.5	130.2	108.7	96.6	84.5	69.8	73.8	52.3	155.7
82.5°	94.2	96.6	94.7	93.7	79.7	70.9	59.8	51.5	52.3	41.6	115.9
85°	48.3	44.3	47.0	45.6	40.3	36.2	28.2	21.5	26.8	24.2	57.7
87.5°	12.9	15.0	15.0	16.1	15.0	12.9	8.6	5.4	9.7	11.8	23.6
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°	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4	1418.4
2.5°	1433.4	1433.4	1443.1	1445.2	1447.4	1444.2	1447.4	1445.2	1443.1	1433.4	1433.4
5°	1454.6	1454.6	1468.0	1472.1	1472.1	1469.4	1472.1	1472.1	1468.0	1454.6	1454.6
7.5°	1456.5	1458.7	1472.1	1475.0	1477.4	1473.4	1477.4	1475.0	1472.1	1458.7	1456.5
10°	1453.3	1458.7	1472.1	1476.1	1477.4	1473.4	1477.4	1476.1	1472.1	1458.7	1453.3
12.5°	1449.0	1453.3	1466.7	1469.7	1472.1	1469.1	1472.1	1469.7	1466.7	1453.3	1449.0
15°	1434.5	1439.9	1454.6	1457.3	1460.0	1456.0	1460.0	1457.3	1454.6	1439.9	1434.5
17.5°	1414.4	1421.1	1434.5	1438.8	1440.1	1435.0	1440.1	1438.8	1434.5	1421.1	1414.4
20°	1398.3	1405.0	1418.4	1423.8	1425.1	1421.1	1425.1	1423.8	1418.4	1405.0	1398.3
22.5°	1377.9	1388.9	1401.2	1403.4	1401.5	1397.5	1401.5	1403.4	1401.2	1388.9	1377.9
25°	1348.6	1358.0	1362.0	1362.0	1362.0	1358.0	1362.0	1362.0	1362.0	1358.0	1348.6
27.5°	1311.3	1316.1	1318.6	1320.7	1323.4	1320.7	1323.4	1320.7	1318.6	1316.1	1311.3
30°	1285.6	1282.9	1289.6	1294.9	1297.6	1294.9	1297.6	1294.9	1289.6	1282.9	1285.6
32.5°	1250.1	1251.7	1261.7	1264.9	1265.4	1262.7	1265.4	1264.9	1261.7	1251.7	1250.1
35°	1198.3	1205.0	1211.7	1214.4	1215.8	1211.7	1215.8	1214.4	1211.7	1205.0	1198.3
37.5°	1143.6	1155.4	1160.2	1157.3	1157.5	1153.2	1157.5	1157.3	1160.2	1155.4	1143.6
40°	1107.1	1117.8	1120.5	1116.5	1117.8	1112.4	1117.8	1116.5	1120.5	1117.8	1107.1
42.5°	1072.7	1081.3	1078.6	1073.5	1072.7	1070.6	1072.7	1073.5	1078.6	1081.3	1072.7
45°	1015.8	1019.9	1007.8	1003.7	1001.1	998.4	1001.1	1003.7	1007.8	1019.9	1015.8
47.5°	953.6	948.2	936.7	930.5	923.0	917.9	923.0	930.5	936.7	948.2	953.6
50°	913.8	897.7	888.3	873.6	868.2	869.6	868.2	873.6	888.3	897.7	913.8
52.5°	865.5	846.2	831.4	818.8	814.5	813.7	814.5	818.8	831.4	846.2	865.5
55°	795.8	766.2	742.1	735.4	734.0	736.7	734.0	735.4	742.1	766.2	795.8
57.5°	710.1	681.2	661.3	655.9	651.4	647.1	651.4	655.9	661.3	681.2	710.1
60°	652.2	625.3	606.5	601.2	589.1	583.7	589.1	601.2	606.5	625.3	652.2
62.5°	600.6	568.4	553.9	543.2	534.3	525.8	534.3	543.2	553.9	568.4	600.6
65°	526.0	488.5	473.7	464.3	448.2	444.2	448.2	464.3	473.7	488.5	526.0
67.5°	444.4	411.7	393.2	380.6	370.4	370.1	370.4	380.6	393.2	411.7	444.4
70°	391.8	362.3	344.9	330.1	322.1	320.7	322.1	330.1	344.9	362.3	391.8
72.5°	340.3	311.9	296.6	282.9	275.9	274.6	275.9	282.9	296.6	311.9	340.3
75°	267.0	240.2	228.1	218.7	213.4	210.7	213.4	218.7	228.1	240.2	267.0
77.5°	197.5	175.8	169.6	160.0	155.4	155.1	155.4	160.0	169.6	175.8	197.5
80°	155.7	138.2	128.8	123.5	122.1	120.8	122.1	123.5	128.8	138.2	155.7
82.5°	112.7	102.8	96.6	93.4	93.1	90.7	93.1	93.4	96.6	102.8	112.7
85°	60.4	57.7	56.4	55.0	53.7	53.7	53.7	55.0	56.4	57.7	60.4
87.5°	24.7	25.8	25.8	26.8	27.9	26.8	27.9	26.8	25.8	25.8	24.7
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-100D-840-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1418.4	1418.4	1418.4	1418.4
2.5°	1436.6	1434.5	1428.1	1428.1
5°	1456.0	1450.6	1435.8	1425.1
7.5°	1460.5	1452.8	1433.4	1411.7
10°	1457.3	1450.6	1429.1	1401.0
12.5°	1450.9	1443.1	1422.7	1385.9
15°	1437.2	1425.1	1406.3	1360.7
17.5°	1415.4	1404.7	1382.4	1324.5
20°	1398.3	1387.5	1362.0	1297.6
22.5°	1377.9	1367.1	1340.6	1261.1
25°	1344.6	1328.5	1305.7	1198.3
27.5°	1307.6	1290.1	1257.6	1129.4
30°	1282.9	1260.1	1215.8	1078.9
32.5°	1256.0	1228.9	1153.5	1022.0
35°	1207.7	1184.9	1077.6	911.2
37.5°	1155.1	1138.5	1008.8	786.4
40°	1116.5	1103.1	943.4	711.2
42.5°	1069.2	1065.5	871.4	655.4
45°	1005.1	1005.1	829.3	587.8
47.5°	939.6	940.1	770.3	570.0
50°	897.7	884.3	727.3	569.0
52.5°	854.8	812.4	674.7	527.1
55°	783.7	712.6	593.1	479.1
57.5°	712.0	621.3	466.4	463.2
60°	656.2	556.9	356.9	432.1
62.5°	602.5	483.9	278.6	399.9
65°	523.3	331.5	217.4	332.8
67.5°	447.9	210.4	165.3	240.5
70°	398.5	155.7	118.1	187.9
72.5°	348.1	122.4	99.8	162.1
75°	272.4	87.2	100.6	126.1
77.5°	204.0	66.3	89.9	88.0
80°	155.7	52.3	73.8	69.8
82.5°	115.9	41.6	52.3	51.5
85°	57.7	24.2	26.8	21.5
87.5°	23.6	11.8	9.7	5.4
90°	0.0	0.0	0.0	0.0

(END OF REPORT)