

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-830-1D-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-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

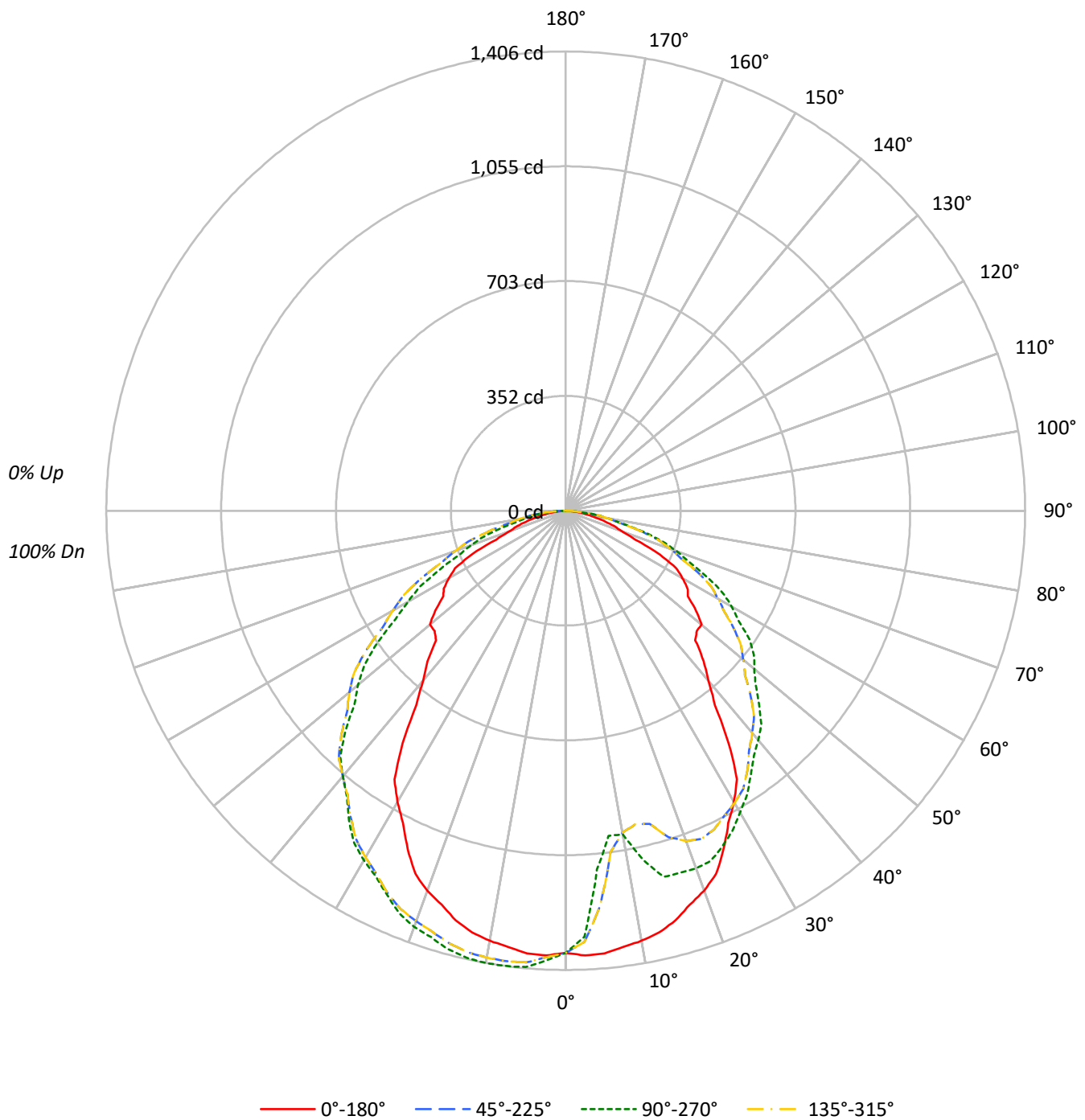
Lumens per Lamp: N/A
Luminaire Lumens: 3507.5 lumens
Efficiency: N/A
Efficacy: 99.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-830-1D-UNV-STD-W-8

Luminous Intensity Polar Plot



TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-830-1D-UNV-STD-W-8

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°	6244	6244	6244	6244
5°	6297	5105	6297	6493
10°	6262	4709	6262	6586
15°	6201	5541	6201	6636
20°	6079	5721	6079	6657
25°	5820	5775	5820	6596
30°	5484	5682	5484	6582
35°	4897	5560	4897	6512
40°	4087	5522	4087	6393
45°	3659	5455	3659	6215
50°	3896	5403	3896	5955
55°	3676	5521	3676	5654
60°	3804	5411	3804	5139
65°	3467	5172	3467	4627
70°	2418	4853	2418	4127
75°	2146	4290	2146	3583
80°	1769	3334	1769	3060
85°	1085	2302	1085	2710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6349 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-830-1D-UNV-STD-W-8

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	122.0	3.5
10°-20°	346.8	9.9
20°-30°	535.9	15.3
30°-40°	640.2	18.3
40°-50°	644.4	18.4
50°-60°	559.4	16.0
60°-70°	396.0	11.3
70°-80°	209.5	6.0
80°-90°	53.3	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°	1004.6	28.6
0°-40°	1644.9	46.9
0°-60°	2848.7	81.2
0°-90°	3507.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3507.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1354	1354	1354	1354	1354	
5°	1360	1102	1360	1402	1360	129
15°	1298	1160	1298	1389	1298	365
25°	1144	1134	1144	1296	1144	524
35°	870	987	870	1156	870	537
45°	561	836	561	953	561	452
55°	457	686	457	703	457	421
65°	318	474	318	424	318	302
75°	120	241	120	201	120	127
85°	20	44	20	51	20	29
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5
2.5°	1362.7	1352.5	1348.4	1340.2	1324.8	1316.6	1322.8	1312.5	1316.6	1305.4	1316.6
5°	1359.9	1336.9	1317.7	1285.6	1239.5	1185.8	1173.0	1139.7	1119.2	1102.5	1119.2
7.5°	1347.1	1307.7	1249.0	1151.2	1072.6	1034.1	1024.7	1015.2	1012.6	1004.2	1012.6
10°	1336.9	1283.1	1174.2	1064.1	1009.1	991.1	995.0	998.8	1006.5	1005.2	1006.5
12.5°	1322.5	1240.1	1096.4	1020.1	983.4	982.9	1011.4	1062.3	1097.7	1095.4	1097.7
15°	1298.4	1157.6	1023.1	974.5	963.0	1021.9	1125.6	1149.9	1158.9	1160.2	1158.9
17.5°	1263.9	1076.9	976.3	944.3	983.4	1111.5	1143.0	1154.0	1161.7	1162.2	1161.7
20°	1238.3	1035.9	952.7	930.9	1034.7	1116.6	1135.8	1149.9	1162.7	1165.3	1162.7
22.5°	1203.4	1007.3	928.1	921.7	1063.3	1111.5	1128.7	1149.9	1160.7	1160.2	1160.7
25°	1143.5	971.9	897.6	911.7	1066.7	1084.6	1117.9	1132.0	1133.3	1134.5	1133.3
27.5°	1077.7	940.9	862.0	918.4	1045.9	1058.7	1094.6	1101.8	1106.6	1104.6	1106.6
30°	1029.5	919.4	837.5	919.4	1029.5	1037.2	1073.1	1078.2	1071.8	1066.7	1071.8
32.5°	975.2	892.8	813.9	912.2	1005.0	1015.7	1044.4	1042.3	1035.9	1031.8	1035.9
35°	869.5	847.7	770.9	888.7	963.0	977.0	993.7	992.4	991.1	987.3	991.1
37.5°	750.4	794.4	728.4	852.1	922.5	921.5	946.3	951.7	950.4	945.5	950.4
40°	678.7	750.4	701.7	823.4	893.8	883.6	915.6	922.0	920.7	916.9	920.7
42.5°	625.4	692.0	671.0	788.5	859.0	846.7	885.9	892.3	888.9	886.1	888.9
45°	560.9	572.4	623.6	732.5	800.3	799.0	841.3	847.7	840.0	836.2	840.0
47.5°	544.0	461.5	571.9	667.4	742.2	747.1	792.4	798.0	791.1	787.8	791.1
50°	542.9	407.2	534.0	617.2	704.3	713.2	760.6	763.2	754.2	752.9	754.2
52.5°	503.0	376.5	489.9	573.2	671.5	682.5	725.8	725.3	724.5	726.3	724.5
55°	457.1	339.3	413.6	508.4	621.1	635.1	673.6	674.8	683.8	686.4	683.8
57.5°	442.0	297.3	342.9	452.3	570.3	581.4	617.5	620.5	626.7	626.4	626.7
60°	412.3	267.6	300.9	417.4	531.4	545.5	577.5	582.6	587.8	586.5	587.8
62.5°	381.6	247.1	280.4	388.8	494.5	509.6	531.4	540.6	542.7	540.4	542.7
65°	317.6	220.2	248.4	343.2	437.9	454.6	468.7	475.1	476.4	473.8	476.4
67.5°	229.5	195.4	223.3	298.1	372.9	391.6	399.8	403.6	402.3	406.9	402.3
70°	179.3	178.0	204.9	266.3	332.9	349.6	354.7	358.5	357.3	359.8	357.3
72.5°	154.7	163.7	185.4	233.6	287.9	304.5	307.6	308.3	312.2	309.6	312.2
75°	120.4	139.6	153.7	184.4	225.4	236.9	238.2	239.5	236.9	240.7	236.9
77.5°	84.0	106.3	118.8	136.5	164.2	171.3	171.1	171.8	169.8	169.5	169.8
80°	66.6	80.7	92.2	103.7	124.2	129.3	128.1	126.8	126.8	125.5	126.8
82.5°	49.2	57.1	67.6	76.1	89.4	90.4	92.2	89.9	89.9	91.7	89.9
85°	20.5	26.9	34.6	38.4	43.5	44.8	42.3	46.1	43.5	43.5	43.5
87.5°	5.1	8.2	12.3	14.3	15.4	14.3	14.3	12.3	12.3	12.3	12.3
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-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5
2.5°	1312.5	1322.8	1316.6	1324.8	1340.2	1348.4	1352.5	1362.7	1362.7	1368.9	1370.9
5°	1139.7	1173.0	1185.8	1239.5	1285.6	1317.7	1336.9	1359.9	1370.2	1384.2	1389.4
7.5°	1015.2	1024.7	1034.1	1072.6	1151.2	1249.0	1307.7	1347.1	1367.9	1386.3	1393.7
10°	998.8	995.0	991.1	1009.1	1064.1	1174.2	1283.1	1336.9	1363.8	1384.2	1390.6
12.5°	1062.3	1011.4	982.9	983.4	1020.1	1096.4	1240.1	1322.5	1357.6	1377.1	1384.5
15°	1149.9	1125.6	1021.9	963.0	974.5	1023.1	1157.6	1298.4	1342.0	1359.9	1371.4
17.5°	1154.0	1143.0	1111.5	983.4	944.3	976.3	1076.9	1263.9	1319.2	1340.4	1350.7
20°	1149.9	1135.8	1116.6	1034.7	930.9	952.7	1035.9	1238.3	1299.7	1324.1	1334.3
22.5°	1149.9	1128.7	1111.5	1063.3	921.7	928.1	1007.3	1203.4	1279.2	1304.6	1314.8
25°	1132.0	1117.9	1084.6	1066.7	911.7	897.6	971.9	1143.5	1245.9	1267.7	1283.1
27.5°	1101.8	1094.6	1058.7	1045.9	918.4	862.0	940.9	1077.7	1200.1	1231.1	1247.7
30°	1078.2	1073.1	1037.2	1029.5	919.4	837.5	919.4	1029.5	1160.2	1202.4	1224.2
32.5°	1042.3	1044.4	1015.7	1005.0	912.2	813.9	892.8	975.2	1100.7	1172.7	1198.6
35°	992.4	993.7	977.0	963.0	888.7	770.9	847.7	869.5	1028.3	1130.7	1152.5
37.5°	951.7	946.3	921.5	922.5	852.1	728.4	794.4	750.4	962.7	1086.4	1102.3
40°	922.0	915.6	883.6	893.8	823.4	701.7	750.4	678.7	900.2	1052.6	1065.4
42.5°	892.3	885.9	846.7	859.0	788.5	671.0	692.0	625.4	831.6	1016.7	1020.3
45°	847.7	841.3	799.0	800.3	732.5	623.6	572.4	560.9	791.4	959.1	959.1
47.5°	798.0	792.4	747.1	742.2	667.4	571.9	461.5	544.0	735.0	897.1	896.6
50°	763.2	760.6	713.2	704.3	617.2	534.0	407.2	542.9	694.0	843.9	856.7
52.5°	725.3	725.8	682.5	671.5	573.2	489.9	376.5	503.0	643.8	775.2	815.7
55°	674.8	673.6	635.1	621.1	508.4	413.6	339.3	457.1	566.0	680.0	747.8
57.5°	620.5	617.5	581.4	570.3	452.3	342.9	297.3	442.0	445.1	592.9	679.4
60°	582.6	577.5	545.5	531.4	417.4	300.9	267.6	412.3	340.6	531.4	626.2
62.5°	540.6	531.4	509.6	494.5	388.8	280.4	247.1	381.6	265.8	461.8	575.0
65°	475.1	468.7	454.6	437.9	343.2	248.4	220.2	317.6	207.4	316.3	499.4
67.5°	403.6	399.8	391.6	372.9	298.1	223.3	195.4	229.5	157.8	200.8	427.4
70°	358.5	354.7	349.6	332.9	266.3	204.9	178.0	179.3	112.7	148.5	380.3
72.5°	308.3	307.6	304.5	287.9	233.6	185.4	163.7	154.7	95.3	116.8	332.2
75°	239.5	238.2	236.9	225.4	184.4	153.7	139.6	120.4	96.0	83.2	259.9
77.5°	171.8	171.1	171.3	164.2	136.5	118.8	106.3	84.0	85.8	63.3	194.6
80°	126.8	128.1	129.3	124.2	103.7	92.2	80.7	66.6	70.4	49.9	148.5
82.5°	89.9	92.2	90.4	89.4	76.1	67.6	57.1	49.2	49.9	39.7	110.6
85°	46.1	42.3	44.8	43.5	38.4	34.6	26.9	20.5	25.6	23.0	55.1
87.5°	12.3	14.3	14.3	15.4	14.3	12.3	8.2	5.1	9.2	11.3	22.5
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-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5	1353.5
2.5°	1367.9	1367.9	1377.1	1379.1	1381.2	1378.1	1381.2	1379.1	1377.1	1367.9	1367.9
5°	1388.1	1388.1	1400.9	1404.7	1404.7	1402.2	1404.7	1404.7	1400.9	1388.1	1388.1
7.5°	1389.9	1391.9	1404.7	1407.5	1409.9	1406.0	1409.9	1407.5	1404.7	1391.9	1389.9
10°	1386.8	1391.9	1404.7	1408.6	1409.9	1406.0	1409.9	1408.6	1404.7	1391.9	1386.8
12.5°	1382.7	1386.8	1399.6	1402.4	1404.7	1401.9	1404.7	1402.4	1399.6	1386.8	1382.7
15°	1368.9	1374.0	1388.1	1390.6	1393.2	1389.4	1393.2	1390.6	1388.1	1374.0	1368.9
17.5°	1349.7	1356.1	1368.9	1373.0	1374.3	1369.4	1374.3	1373.0	1368.9	1356.1	1349.7
20°	1334.3	1340.7	1353.5	1358.6	1359.9	1356.1	1359.9	1358.6	1353.5	1340.7	1334.3
22.5°	1314.8	1325.3	1337.1	1339.2	1337.4	1333.5	1337.4	1339.2	1337.1	1325.3	1314.8
25°	1286.9	1295.9	1299.7	1299.7	1299.7	1295.9	1299.7	1299.7	1299.7	1295.9	1286.9
27.5°	1251.3	1255.9	1258.2	1260.3	1262.8	1260.3	1262.8	1260.3	1258.2	1255.9	1251.3
30°	1226.7	1224.2	1230.6	1235.7	1238.3	1235.7	1238.3	1235.7	1230.6	1224.2	1226.7
32.5°	1192.9	1194.5	1203.9	1207.0	1207.5	1205.0	1207.5	1207.0	1203.9	1194.5	1192.9
35°	1143.5	1149.9	1156.3	1158.9	1160.2	1156.3	1160.2	1158.9	1156.3	1149.9	1143.5
37.5°	1091.3	1102.5	1107.1	1104.3	1104.6	1100.5	1104.6	1104.3	1107.1	1102.5	1091.3
40°	1056.4	1066.7	1069.2	1065.4	1066.7	1061.6	1066.7	1065.4	1069.2	1066.7	1056.4
42.5°	1023.6	1031.8	1029.3	1024.4	1023.6	1021.6	1023.6	1024.4	1029.3	1031.8	1023.6
45°	969.4	973.2	961.7	957.8	955.3	952.7	955.3	957.8	961.7	973.2	969.4
47.5°	909.9	904.8	893.8	887.9	880.7	875.9	880.7	887.9	893.8	904.8	909.9
50°	872.0	856.7	847.7	833.6	828.5	829.8	828.5	833.6	847.7	856.7	872.0
52.5°	825.9	807.5	793.4	781.4	777.3	776.5	777.3	781.4	793.4	807.5	825.9
55°	759.3	731.2	708.1	701.7	700.4	703.0	700.4	701.7	708.1	731.2	759.3
57.5°	677.7	650.0	631.0	625.9	621.6	617.5	621.6	625.9	631.0	650.0	677.7
60°	622.3	596.7	578.8	573.7	562.1	557.0	562.1	573.7	578.8	596.7	622.3
62.5°	573.2	542.4	528.6	518.4	509.9	501.7	509.9	518.4	528.6	542.4	573.2
65°	502.0	466.1	452.0	443.1	427.7	423.9	427.7	443.1	452.0	466.1	502.0
67.5°	424.1	392.9	375.2	363.2	353.4	353.2	353.4	363.2	375.2	392.9	424.1
70°	373.9	345.7	329.1	315.0	307.3	306.0	307.3	315.0	329.1	345.7	373.9
72.5°	324.7	297.6	283.0	269.9	263.3	262.0	263.3	269.9	283.0	297.6	324.7
75°	254.8	229.2	217.7	208.7	203.6	201.0	203.6	208.7	217.7	229.2	254.8
77.5°	188.5	167.7	161.9	152.6	148.3	148.0	148.3	152.6	161.9	167.7	188.5
80°	148.5	131.9	122.9	117.8	116.5	115.2	116.5	117.8	122.9	131.9	148.5
82.5°	107.6	98.1	92.2	89.1	88.9	86.6	88.9	89.1	92.2	98.1	107.6
85°	57.6	55.1	53.8	52.5	51.2	51.2	51.2	52.5	53.8	55.1	57.6
87.5°	23.6	24.6	24.6	25.6	26.6	25.6	26.6	25.6	24.6	24.6	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

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1353.5	1353.5	1353.5	1353.5
2.5°	1370.9	1368.9	1362.7	1362.7
5°	1389.4	1384.2	1370.2	1359.9
7.5°	1393.7	1386.3	1367.9	1347.1
10°	1390.6	1384.2	1363.8	1336.9
12.5°	1384.5	1377.1	1357.6	1322.5
15°	1371.4	1359.9	1342.0	1298.4
17.5°	1350.7	1340.4	1319.2	1263.9
20°	1334.3	1324.1	1299.7	1238.3
22.5°	1314.8	1304.6	1279.2	1203.4
25°	1283.1	1267.7	1245.9	1143.5
27.5°	1247.7	1231.1	1200.1	1077.7
30°	1224.2	1202.4	1160.2	1029.5
32.5°	1198.6	1172.7	1100.7	975.2
35°	1152.5	1130.7	1028.3	869.5
37.5°	1102.3	1086.4	962.7	750.4
40°	1065.4	1052.6	900.2	678.7
42.5°	1020.3	1016.7	831.6	625.4
45°	959.1	959.1	791.4	560.9
47.5°	896.6	897.1	735.0	544.0
50°	856.7	843.9	694.0	542.9
52.5°	815.7	775.2	643.8	503.0
55°	747.8	680.0	566.0	457.1
57.5°	679.4	592.9	445.1	442.0
60°	626.2	531.4	340.6	412.3
62.5°	575.0	461.8	265.8	381.6
65°	499.4	316.3	207.4	317.6
67.5°	427.4	200.8	157.8	229.5
70°	380.3	148.5	112.7	179.3
72.5°	332.2	116.8	95.3	154.7
75°	259.9	83.2	96.0	120.4
77.5°	194.6	63.3	85.8	84.0
80°	148.5	49.9	70.4	66.6
82.5°	110.6	39.7	49.9	49.2
85°	55.1	23.0	25.6	20.5
87.5°	22.5	11.3	9.2	5.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)