

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-830-1D-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-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

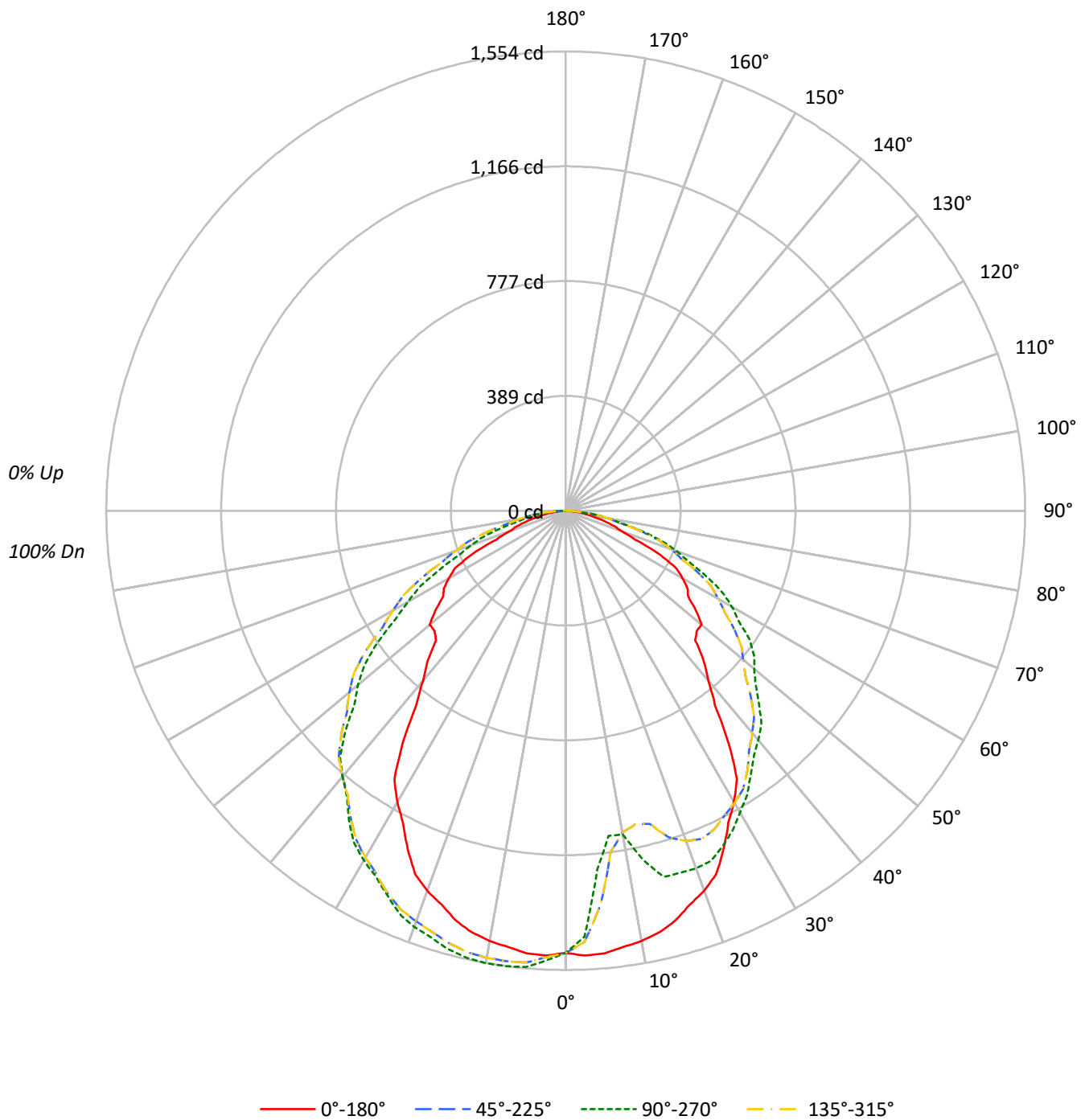
Lumens per Lamp: N/A
Luminaire Lumens: 3877.3 lumens
Efficiency: N/A
Efficacy: 96.0 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

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		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°	9203	9203	9203	9203
5°	9282	7525	9282	9570
10°	9230	6940	9230	9708
15°	9140	8167	9140	9780
20°	8960	8431	8960	9812
25°	8579	8512	8579	9722
30°	8083	8374	8083	9702
35°	7217	8195	7217	9598
40°	6024	8138	6024	9422
45°	5393	8040	5393	9161
50°	5743	7964	5743	8778
55°	5419	8136	5419	8333
60°	5607	7975	5607	7575
65°	5110	7623	5110	6819
70°	3564	7154	3564	6084
75°	3163	6324	3163	5281
80°	2607	4913	2607	4513
85°	1595	3395	1595	3994

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 9358 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	134.9	3.5
10°-20°	383.3	9.9
20°-30°	592.4	15.3
30°-40°	707.7	18.3
40°-50°	712.3	18.4
50°-60°	618.4	16.0
60°-70°	437.8	11.3
70°-80°	231.6	6.0
80°-90°	58.9	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°	1110.6	28.6
0°-40°	1818.3	46.9
0°-60°	3149.1	81.2
0°-90°	3877.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	3877.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1496	1496	1496	1496	1496	
5°	1503	1219	1503	1550	1503	142
15°	1435	1282	1435	1536	1435	404
25°	1264	1254	1264	1432	1264	580
35°	961	1091	961	1278	961	594
45°	620	924	620	1053	620	499
55°	505	759	505	777	505	465
65°	351	524	351	468	351	334
75°	133	266	133	222	133	140
85°	23	48	23	57	23	32
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°	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2
2.5°	1506.4	1495.1	1490.6	1481.5	1464.5	1455.5	1462.3	1450.9	1455.5	1443.0	1455.5
5°	1503.3	1477.8	1456.6	1421.2	1370.2	1310.8	1296.6	1259.8	1237.2	1218.8	1237.2
7.5°	1489.2	1445.6	1380.7	1272.6	1185.7	1143.2	1132.7	1122.2	1119.4	1110.1	1119.4
10°	1477.8	1418.4	1298.1	1176.3	1115.4	1095.6	1099.9	1104.1	1112.6	1111.2	1112.6
12.5°	1462.0	1370.8	1212.0	1127.6	1087.1	1086.6	1118.0	1174.3	1213.4	1210.9	1213.4
15°	1435.4	1279.7	1131.0	1077.2	1064.5	1129.6	1244.3	1271.2	1281.1	1282.5	1281.1
17.5°	1397.1	1190.5	1079.2	1043.8	1087.1	1228.7	1263.5	1275.7	1284.2	1284.7	1284.2
20°	1368.8	1145.2	1053.2	1029.1	1143.8	1234.4	1255.6	1271.2	1285.3	1288.1	1285.3
22.5°	1330.3	1113.5	1026.0	1018.9	1175.5	1228.7	1247.7	1271.2	1283.0	1282.5	1283.0
25°	1264.1	1074.4	992.3	1007.9	1179.1	1199.0	1235.8	1251.3	1252.8	1254.2	1252.8
27.5°	1191.3	1040.1	952.9	1015.2	1156.2	1170.4	1210.0	1217.9	1223.3	1221.0	1223.3
30°	1138.1	1016.4	925.8	1016.4	1138.1	1146.6	1186.2	1191.9	1184.8	1179.1	1184.8
32.5°	1078.1	986.9	899.7	1008.4	1110.9	1122.8	1154.5	1152.3	1145.2	1140.6	1145.2
35°	961.2	937.1	852.2	982.4	1064.5	1080.1	1098.5	1097.0	1095.6	1091.4	1095.6
37.5°	829.5	878.2	805.2	941.9	1019.8	1018.6	1046.1	1052.0	1050.6	1045.2	1050.6
40°	750.2	829.5	775.7	910.2	988.0	976.7	1012.1	1019.2	1017.8	1013.5	1017.8
42.5°	691.4	765.0	741.7	871.7	949.5	936.0	979.3	986.4	982.7	979.6	982.7
45°	620.0	632.7	689.4	809.7	884.7	883.3	930.0	937.1	928.6	924.3	928.6
47.5°	601.3	510.2	632.2	737.8	820.4	825.8	875.9	882.2	874.5	870.8	874.5
50°	600.2	450.1	590.3	682.3	778.5	788.5	840.8	843.7	833.8	832.3	833.8
52.5°	556.0	416.2	541.6	633.6	742.3	754.5	802.3	801.8	800.9	802.9	800.9
55°	505.3	375.1	457.2	562.0	686.5	702.1	744.6	746.0	755.9	758.7	755.9
57.5°	488.6	328.7	379.1	500.0	630.5	642.7	682.6	686.0	692.8	692.5	692.8
60°	455.8	295.8	332.7	461.5	587.5	603.0	638.4	644.1	649.7	648.3	649.7
62.5°	421.8	273.2	310.0	429.8	546.7	563.4	587.5	597.6	599.9	597.4	599.9
65°	351.1	243.5	274.6	379.4	484.1	502.5	518.1	525.2	526.6	523.8	526.6
67.5°	253.7	216.0	246.9	329.5	412.2	432.9	441.9	446.2	444.8	449.9	444.8
70°	198.2	196.8	226.5	294.4	368.0	386.4	392.1	396.4	394.9	397.8	394.9
72.5°	171.0	180.9	205.0	258.2	318.2	336.6	340.0	340.9	345.1	342.3	345.1
75°	133.1	154.3	169.9	203.8	249.1	261.9	263.3	264.7	261.9	266.1	261.9
77.5°	92.9	117.5	131.4	150.9	181.5	189.4	189.1	190.0	187.7	187.4	187.7
80°	73.6	89.2	101.9	114.7	137.3	143.0	141.6	140.1	140.1	138.7	140.1
82.5°	54.4	63.1	74.7	84.1	98.8	99.9	101.9	99.4	99.4	101.4	99.4
85°	22.6	29.7	38.2	42.5	48.1	49.5	46.7	51.0	48.1	48.1	48.1
87.5°	5.7	9.1	13.6	15.9	17.0	15.9	15.9	13.6	13.6	13.6	13.6
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2
2.5°	1450.9	1462.3	1455.5	1464.5	1481.5	1490.6	1495.1	1506.4	1506.4	1513.2	1515.5
5°	1259.8	1296.6	1310.8	1370.2	1421.2	1456.6	1477.8	1503.3	1514.6	1530.2	1535.9
7.5°	1122.2	1132.7	1143.2	1185.7	1272.6	1380.7	1445.6	1489.2	1512.1	1532.5	1540.7
10°	1104.1	1099.9	1095.6	1115.4	1176.3	1298.1	1418.4	1477.8	1507.6	1530.2	1537.3
12.5°	1174.3	1118.0	1086.6	1087.1	1127.6	1212.0	1370.8	1462.0	1500.8	1522.3	1530.5
15°	1271.2	1244.3	1129.6	1064.5	1077.2	1131.0	1279.7	1435.4	1483.5	1503.3	1516.0
17.5°	1275.7	1263.5	1228.7	1087.1	1043.8	1079.2	1190.5	1397.1	1458.3	1481.8	1493.1
20°	1271.2	1255.6	1234.4	1143.8	1029.1	1053.2	1145.2	1368.8	1436.8	1463.7	1475.0
22.5°	1271.2	1247.7	1228.7	1175.5	1018.9	1026.0	1113.5	1330.3	1414.1	1442.2	1453.5
25°	1251.3	1235.8	1199.0	1179.1	1007.9	992.3	1074.4	1264.1	1377.3	1401.4	1418.4
27.5°	1217.9	1210.0	1170.4	1156.2	1015.2	952.9	1040.1	1191.3	1326.6	1360.9	1379.3
30°	1191.9	1186.2	1146.6	1138.1	1016.4	925.8	1016.4	1138.1	1282.5	1329.2	1353.3
32.5°	1152.3	1154.5	1122.8	1110.9	1008.4	899.7	986.9	1078.1	1216.8	1296.4	1324.9
35°	1097.0	1098.5	1080.1	1064.5	982.4	852.2	937.1	961.2	1136.7	1249.9	1274.0
37.5°	1052.0	1046.1	1018.6	1019.8	941.9	805.2	878.2	829.5	1064.2	1200.9	1218.5
40°	1019.2	1012.1	976.7	988.0	910.2	775.7	829.5	750.2	995.1	1163.6	1177.7
42.5°	986.4	979.3	936.0	949.5	871.7	741.7	765.0	691.4	919.3	1123.9	1127.9
45°	937.1	930.0	883.3	884.7	809.7	689.4	632.7	620.0	874.8	1060.2	1060.2
47.5°	882.2	875.9	825.8	820.4	737.8	632.2	510.2	601.3	812.5	991.7	991.2
50°	843.7	840.8	788.5	778.5	682.3	590.3	450.1	600.2	767.2	932.8	947.0
52.5°	801.8	802.3	754.5	742.3	633.6	541.6	416.2	556.0	711.7	857.0	901.7
55°	746.0	744.6	702.1	686.5	562.0	457.2	375.1	505.3	625.7	751.7	826.7
57.5°	686.0	682.6	642.7	630.5	500.0	379.1	328.7	488.6	492.0	655.4	751.1
60°	644.1	638.4	603.0	587.5	461.5	332.7	295.8	455.8	376.5	587.5	692.2
62.5°	597.6	587.5	563.4	546.7	429.8	310.0	273.2	421.8	293.9	510.4	635.6
65°	525.2	518.1	502.5	484.1	379.4	274.6	243.5	351.1	229.3	349.6	552.1
67.5°	446.2	441.9	432.9	412.2	329.5	246.9	216.0	253.7	174.4	222.0	472.5
70°	396.4	392.1	386.4	368.0	294.4	226.5	196.8	198.2	124.6	164.2	420.4
72.5°	340.9	340.0	336.6	318.2	258.2	205.0	180.9	171.0	105.3	129.1	367.2
75°	264.7	263.3	261.9	249.1	203.8	169.9	154.3	133.1	106.2	92.0	287.4
77.5°	190.0	189.1	189.4	181.5	150.9	131.4	117.5	92.9	94.8	69.9	215.2
80°	140.1	141.6	143.0	137.3	114.7	101.9	89.2	73.6	77.9	55.2	164.2
82.5°	99.4	101.9	99.9	98.8	84.1	74.7	63.1	54.4	55.2	43.9	122.3
85°	51.0	46.7	49.5	48.1	42.5	38.2	29.7	22.6	28.3	25.5	60.9
87.5°	13.6	15.9	15.9	17.0	15.9	13.6	9.1	5.7	10.2	12.5	24.9
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2	1496.2
2.5°	1512.1	1512.1	1522.3	1524.5	1526.8	1523.4	1526.8	1524.5	1522.3	1512.1	1512.1
5°	1534.4	1534.4	1548.6	1552.9	1552.9	1550.0	1552.9	1552.9	1548.6	1534.4	1534.4
7.5°	1536.4	1538.7	1552.9	1556.0	1558.5	1554.3	1558.5	1556.0	1552.9	1538.7	1536.4
10°	1533.0	1538.7	1552.9	1557.1	1558.5	1554.3	1558.5	1557.1	1552.9	1538.7	1533.0
12.5°	1528.5	1533.0	1547.2	1550.3	1552.9	1549.7	1552.9	1550.3	1547.2	1533.0	1528.5
15°	1513.2	1518.9	1534.4	1537.3	1540.1	1535.9	1540.1	1537.3	1534.4	1518.9	1513.2
17.5°	1492.0	1499.1	1513.2	1517.7	1519.2	1513.8	1519.2	1517.7	1513.2	1499.1	1492.0
20°	1475.0	1482.1	1496.2	1501.9	1503.3	1499.1	1503.3	1501.9	1496.2	1482.1	1475.0
22.5°	1453.5	1465.1	1478.1	1480.4	1478.4	1474.1	1478.4	1480.4	1478.1	1465.1	1453.5
25°	1422.6	1432.5	1436.8	1436.8	1436.8	1432.5	1436.8	1436.8	1436.8	1432.5	1422.6
27.5°	1383.3	1388.4	1390.9	1393.2	1396.0	1393.2	1396.0	1393.2	1390.9	1388.4	1383.3
30°	1356.1	1353.3	1360.3	1366.0	1368.8	1366.0	1368.8	1366.0	1360.3	1353.3	1356.1
32.5°	1318.7	1320.4	1330.9	1334.3	1334.9	1332.0	1334.9	1334.3	1330.9	1320.4	1318.7
35°	1264.1	1271.2	1278.2	1281.1	1282.5	1278.2	1282.5	1281.1	1278.2	1271.2	1264.1
37.5°	1206.3	1218.8	1223.9	1220.8	1221.0	1216.5	1221.0	1220.8	1223.9	1218.8	1206.3
40°	1167.8	1179.1	1182.0	1177.7	1179.1	1173.5	1179.1	1177.7	1182.0	1179.1	1167.8
42.5°	1131.6	1140.6	1137.8	1132.4	1131.6	1129.3	1131.6	1132.4	1137.8	1140.6	1131.6
45°	1071.6	1075.8	1063.1	1058.8	1056.0	1053.2	1056.0	1058.8	1063.1	1075.8	1071.6
47.5°	1005.9	1000.2	988.0	981.5	973.6	968.2	973.6	981.5	988.0	1000.2	1005.9
50°	964.0	947.0	937.1	921.5	915.9	917.3	915.9	921.5	937.1	947.0	964.0
52.5°	913.0	892.6	877.1	863.8	859.2	858.4	859.2	863.8	877.1	892.6	913.0
55°	839.4	808.3	782.8	775.7	774.3	777.1	774.3	775.7	782.8	808.3	839.4
57.5°	749.1	718.5	697.6	691.9	687.1	682.6	687.1	691.9	697.6	718.5	749.1
60°	688.0	659.6	639.8	634.2	621.4	615.8	621.4	634.2	639.8	659.6	688.0
62.5°	633.6	599.6	584.3	573.0	563.7	554.6	563.7	573.0	584.3	599.6	633.6
65°	554.9	515.3	499.7	489.8	472.8	468.5	472.8	489.8	499.7	515.3	554.9
67.5°	468.8	434.3	414.8	401.4	390.7	390.4	390.7	401.4	414.8	434.3	468.8
70°	413.3	382.2	363.8	348.2	339.7	338.3	339.7	348.2	363.8	382.2	413.3
72.5°	359.0	329.0	312.8	298.4	291.0	289.6	291.0	298.4	312.8	329.0	359.0
75°	281.7	253.4	240.6	230.7	225.1	222.2	225.1	230.7	240.6	253.4	281.7
77.5°	208.4	185.4	178.9	168.7	163.9	163.6	163.9	168.7	178.9	185.4	208.4
80°	164.2	145.8	135.9	130.2	128.8	127.4	128.8	130.2	135.9	145.8	164.2
82.5°	118.9	108.4	101.9	98.5	98.2	95.7	98.2	98.5	101.9	108.4	118.9
85°	63.7	60.9	59.5	58.0	56.6	56.6	56.6	58.0	59.5	60.9	63.7
87.5°	26.0	27.2	27.2	28.3	29.4	28.3	29.4	28.3	27.2	27.2	26.0
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-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1496.2	1496.2	1496.2	1496.2
2.5°	1515.5	1513.2	1506.4	1506.4
5°	1535.9	1530.2	1514.6	1503.3
7.5°	1540.7	1532.5	1512.1	1489.2
10°	1537.3	1530.2	1507.6	1477.8
12.5°	1530.5	1522.3	1500.8	1462.0
15°	1516.0	1503.3	1483.5	1435.4
17.5°	1493.1	1481.8	1458.3	1397.1
20°	1475.0	1463.7	1436.8	1368.8
22.5°	1453.5	1442.2	1414.1	1330.3
25°	1418.4	1401.4	1377.3	1264.1
27.5°	1379.3	1360.9	1326.6	1191.3
30°	1353.3	1329.2	1282.5	1138.1
32.5°	1324.9	1296.4	1216.8	1078.1
35°	1274.0	1249.9	1136.7	961.2
37.5°	1218.5	1200.9	1064.2	829.5
40°	1177.7	1163.6	995.1	750.2
42.5°	1127.9	1123.9	919.3	691.4
45°	1060.2	1060.2	874.8	620.0
47.5°	991.2	991.7	812.5	601.3
50°	947.0	932.8	767.2	600.2
52.5°	901.7	857.0	711.7	556.0
55°	826.7	751.7	625.7	505.3
57.5°	751.1	655.4	492.0	488.6
60°	692.2	587.5	376.5	455.8
62.5°	635.6	510.4	293.9	421.8
65°	552.1	349.6	229.3	351.1
67.5°	472.5	222.0	174.4	253.7
70°	420.4	164.2	124.6	198.2
72.5°	367.2	129.1	105.3	171.0
75°	287.4	92.0	106.2	133.1
77.5°	215.2	69.9	94.8	92.9
80°	164.2	55.2	77.9	73.6
82.5°	122.3	43.9	55.2	54.4
85°	60.9	25.5	28.3	22.6
87.5°	24.9	12.5	10.2	5.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)