

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-835-1D-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-050D-835-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

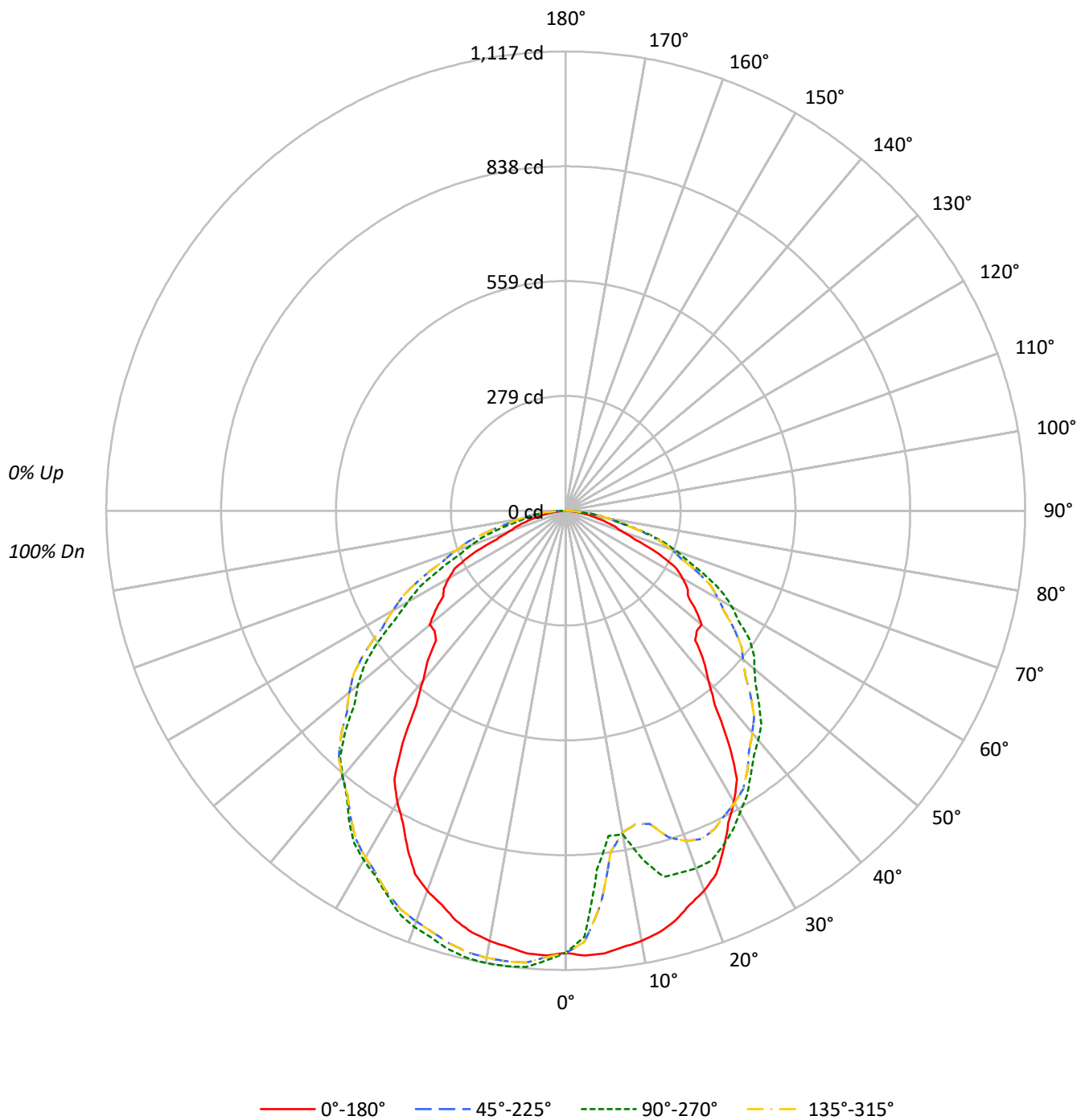
Lumens per Lamp: N/A
Luminaire Lumens: 2787.0 lumens
Efficiency: N/A
Efficacy: 104.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

Input Watts (W): 26.7
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-835-1D-UNV-STD-W-6

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°	6615	6615	6615	6615
5°	6672	5409	6672	6879
10°	6634	4988	6634	6978
15°	6570	5870	6570	7030
20°	6440	6061	6440	7053
25°	6166	6118	6166	6988
30°	5810	6020	5810	6974
35°	5188	5891	5188	6899
40°	4330	5849	4330	6773
45°	3877	5779	3877	6585
50°	4128	5725	4128	6309
55°	3895	5849	3895	5990
60°	4030	5733	4030	5445
65°	3672	5480	3672	4902
70°	2561	5142	2561	4374
75°	2272	4546	2272	3795
80°	1874	3531	1874	3245
85°	1150	2442	1150	2872

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6727 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-835-1D-UNV-STD-W-6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	96.9	3.5
10°-20°	275.5	9.9
20°-30°	425.8	15.3
30°-40°	508.7	18.3
40°-50°	512.0	18.4
50°-60°	444.5	16.0
60°-70°	314.7	11.3
70°-80°	166.4	6.0
80°-90°	42.3	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°	798.3	28.6
0°-40°	1307.0	46.9
0°-60°	2263.5	81.2
0°-90°	2787.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2787.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1076	1076	1076	1076	1076	
5°	1081	876	1081	1114	1081	102
15°	1032	922	1032	1104	1032	290
25°	909	902	909	1030	909	417
35°	691	784	691	919	691	427
45°	446	664	446	757	446	359
55°	363	545	363	559	363	334
65°	252	376	252	337	252	240
75°	96	191	96	160	96	101
85°	16	35	16	41	16	23
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-835-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5
2.5°	1082.8	1074.7	1071.4	1064.9	1052.7	1046.2	1051.1	1042.9	1046.2	1037.2	1046.2
5°	1080.6	1062.2	1047.0	1021.5	984.9	942.2	932.0	905.6	889.3	876.0	889.3
7.5°	1070.4	1039.0	992.4	914.7	852.2	821.7	814.2	806.7	804.6	797.9	804.6
10°	1062.2	1019.5	933.0	845.5	801.8	787.5	790.6	793.6	799.7	798.7	799.7
12.5°	1050.9	985.3	871.2	810.5	781.4	781.0	803.6	844.1	872.2	870.4	872.2
15°	1031.7	919.8	813.0	774.3	765.1	811.9	894.4	913.7	920.8	921.8	920.8
17.5°	1004.3	855.7	775.7	750.3	781.4	883.2	908.2	917.0	923.1	923.5	923.1
20°	983.9	823.1	757.0	739.7	822.1	887.2	902.5	913.7	923.9	925.9	923.9
22.5°	956.2	800.3	737.5	732.4	844.9	883.2	896.8	913.7	922.2	921.8	922.2
25°	908.6	772.3	713.3	724.4	847.6	861.8	888.3	899.5	900.5	901.5	900.5
27.5°	856.3	747.6	685.0	729.7	831.1	841.3	869.7	875.4	879.3	877.7	879.3
30°	818.1	730.5	665.4	730.5	818.1	824.2	852.6	856.7	851.6	847.6	851.6
32.5°	774.9	709.4	646.7	724.9	798.5	807.1	829.9	828.2	823.1	819.9	823.1
35°	690.9	673.6	612.5	706.1	765.1	776.3	789.6	788.5	787.5	784.5	787.5
37.5°	596.2	631.2	578.7	677.0	733.0	732.2	751.9	756.2	755.2	751.3	755.2
40°	539.3	596.2	557.6	654.2	710.2	702.1	727.5	732.6	731.6	728.5	731.6
42.5°	496.9	549.8	533.2	626.6	682.5	672.8	703.9	709.0	706.3	704.1	706.3
45°	445.7	454.8	495.5	582.0	635.9	634.9	668.5	673.6	667.5	664.4	667.5
47.5°	432.2	366.7	454.4	530.3	589.7	593.6	629.6	634.1	628.6	626.0	628.6
50°	431.4	323.6	424.3	490.4	559.6	566.7	604.4	606.4	599.3	598.3	599.3
52.5°	399.7	299.1	389.3	455.4	533.6	542.3	576.7	576.3	575.7	577.1	575.7
55°	363.2	269.6	328.6	403.9	493.5	504.7	535.2	536.2	543.3	545.4	543.3
57.5°	351.2	236.3	272.5	359.4	453.2	461.9	490.6	493.1	498.0	497.8	498.0
60°	327.6	212.7	239.1	331.7	422.3	433.4	458.9	463.0	467.0	466.0	467.0
62.5°	303.2	196.4	222.8	308.9	393.0	405.0	422.3	429.6	431.2	429.4	431.2
65°	252.3	175.0	197.4	272.7	348.0	361.2	372.4	377.5	378.5	376.5	378.5
67.5°	182.3	155.3	177.4	236.9	296.3	311.1	317.7	320.7	319.7	323.4	319.7
70°	142.4	141.4	162.8	211.6	264.5	277.8	281.8	284.9	283.9	285.9	283.9
72.5°	122.9	130.0	147.3	185.6	228.7	242.0	244.4	245.0	248.1	246.0	248.1
75°	95.6	110.9	122.1	146.5	179.1	188.2	189.3	190.3	188.2	191.3	188.2
77.5°	66.7	84.5	94.4	108.5	130.4	136.1	135.9	136.5	134.9	134.7	134.9
80°	52.9	64.1	73.3	82.4	98.7	102.8	101.7	100.7	100.7	99.7	100.7
82.5°	39.1	45.4	53.7	60.4	71.0	71.8	73.3	71.4	71.4	72.9	71.4
85°	16.3	21.4	27.5	30.5	34.6	35.6	33.6	36.6	34.6	34.6	34.6
87.5°	4.1	6.5	9.8	11.4	12.2	11.4	11.4	9.8	9.8	9.8	9.8
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-835-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5
2.5°	1042.9	1051.1	1046.2	1052.7	1064.9	1071.4	1074.7	1082.8	1082.8	1087.7	1089.3
5°	905.6	932.0	942.2	984.9	1021.5	1047.0	1062.2	1080.6	1088.7	1099.9	1104.0
7.5°	806.7	814.2	821.7	852.2	914.7	992.4	1039.0	1070.4	1086.9	1101.5	1107.4
10°	793.6	790.6	787.5	801.8	845.5	933.0	1019.5	1062.2	1083.6	1099.9	1105.0
12.5°	844.1	803.6	781.0	781.4	810.5	871.2	985.3	1050.9	1078.7	1094.2	1100.1
15°	913.7	894.4	811.9	765.1	774.3	813.0	919.8	1031.7	1066.3	1080.6	1089.7
17.5°	917.0	908.2	883.2	781.4	750.3	775.7	855.7	1004.3	1048.2	1065.1	1073.2
20°	913.7	902.5	887.2	822.1	739.7	757.0	823.1	983.9	1032.7	1052.1	1060.2
22.5°	913.7	896.8	883.2	844.9	732.4	737.5	800.3	956.2	1016.5	1036.6	1044.7
25°	899.5	888.3	861.8	847.6	724.4	713.3	772.3	908.6	990.0	1007.3	1019.5
27.5°	875.4	869.7	841.3	831.1	729.7	685.0	747.6	856.3	953.6	978.2	991.4
30°	856.7	852.6	824.2	818.1	730.5	665.4	730.5	818.1	921.8	955.4	972.7
32.5°	828.2	829.9	807.1	798.5	724.9	646.7	709.4	774.9	874.6	931.8	952.4
35°	788.5	789.6	776.3	765.1	706.1	612.5	673.6	690.9	817.0	898.4	915.7
37.5°	756.2	751.9	732.2	733.0	677.0	578.7	631.2	596.2	764.9	863.2	875.8
40°	732.6	727.5	702.1	710.2	654.2	557.6	596.2	539.3	715.3	836.4	846.5
42.5°	709.0	703.9	672.8	682.5	626.6	533.2	549.8	496.9	660.8	807.9	810.7
45°	673.6	668.5	634.9	635.9	582.0	495.5	454.8	445.7	628.8	762.1	762.1
47.5°	634.1	629.6	593.6	589.7	530.3	454.4	366.7	432.2	584.0	712.8	712.4
50°	606.4	604.4	566.7	559.6	490.4	424.3	323.6	431.4	551.5	670.5	680.7
52.5°	576.3	576.7	542.3	533.6	455.4	389.3	299.1	399.7	511.6	616.0	648.1
55°	536.2	535.2	504.7	493.5	403.9	328.6	269.6	363.2	449.7	540.3	594.2
57.5°	493.1	490.6	461.9	453.2	359.4	272.5	236.3	351.2	353.7	471.1	539.9
60°	463.0	458.9	433.4	422.3	331.7	239.1	212.7	327.6	270.6	422.3	497.5
62.5°	429.6	422.3	405.0	393.0	308.9	222.8	196.4	303.2	211.2	366.9	456.8
65°	377.5	372.4	361.2	348.0	272.7	197.4	175.0	252.3	164.8	251.3	396.8
67.5°	320.7	317.7	311.1	296.3	236.9	177.4	155.3	182.3	125.4	159.5	339.6
70°	284.9	281.8	277.8	264.5	211.6	162.8	141.4	142.4	89.5	118.0	302.2
72.5°	245.0	244.4	242.0	228.7	185.6	147.3	130.0	122.9	75.7	92.8	263.9
75°	190.3	189.3	188.2	179.1	146.5	122.1	110.9	95.6	76.3	66.1	206.5
77.5°	136.5	135.9	136.1	130.4	108.5	94.4	84.5	66.7	68.2	50.3	154.7
80°	100.7	101.7	102.8	98.7	82.4	73.3	64.1	52.9	56.0	39.7	118.0
82.5°	71.4	73.3	71.8	71.0	60.4	53.7	45.4	39.1	39.7	31.5	87.9
85°	36.6	33.6	35.6	34.6	30.5	27.5	21.4	16.3	20.3	18.3	43.8
87.5°	9.8	11.4	11.4	12.2	11.4	9.8	6.5	4.1	7.3	9.0	17.9
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-835-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5	1075.5
2.5°	1086.9	1086.9	1094.2	1095.8	1097.5	1095.0	1097.5	1095.8	1094.2	1086.9	1086.9
5°	1102.9	1102.9	1113.1	1116.2	1116.2	1114.1	1116.2	1116.2	1113.1	1102.9	1102.9
7.5°	1104.4	1106.0	1116.2	1118.4	1120.2	1117.2	1120.2	1118.4	1116.2	1106.0	1104.4
10°	1101.9	1106.0	1116.2	1119.2	1120.2	1117.2	1120.2	1119.2	1116.2	1106.0	1101.9
12.5°	1098.7	1101.9	1112.1	1114.3	1116.2	1113.9	1116.2	1114.3	1112.1	1101.9	1098.7
15°	1087.7	1091.8	1102.9	1105.0	1107.0	1104.0	1107.0	1105.0	1102.9	1091.8	1087.7
17.5°	1072.4	1077.5	1087.7	1090.9	1092.0	1088.1	1092.0	1090.9	1087.7	1077.5	1072.4
20°	1060.2	1065.3	1075.5	1079.5	1080.6	1077.5	1080.6	1079.5	1075.5	1065.3	1060.2
22.5°	1044.7	1053.1	1062.5	1064.1	1062.7	1059.6	1062.7	1064.1	1062.5	1053.1	1044.7
25°	1022.6	1029.7	1032.7	1032.7	1032.7	1029.7	1032.7	1032.7	1032.7	1029.7	1022.6
27.5°	994.3	997.9	999.8	1001.4	1003.4	1001.4	1003.4	1001.4	999.8	997.9	994.3
30°	974.7	972.7	977.8	981.9	983.9	981.9	983.9	981.9	977.8	972.7	974.7
32.5°	947.9	949.1	956.6	959.1	959.5	957.4	959.5	959.1	956.6	949.1	947.9
35°	908.6	913.7	918.8	920.8	921.8	918.8	921.8	920.8	918.8	913.7	908.6
37.5°	867.1	876.0	879.7	877.5	877.7	874.4	877.7	877.5	879.7	876.0	867.1
40°	839.4	847.6	849.6	846.5	847.6	843.5	847.6	846.5	849.6	847.6	839.4
42.5°	813.4	819.9	817.8	814.0	813.4	811.7	813.4	814.0	817.8	819.9	813.4
45°	770.2	773.3	764.1	761.1	759.0	757.0	759.0	761.1	764.1	773.3	770.2
47.5°	723.0	719.0	710.2	705.5	699.8	696.0	699.8	705.5	710.2	719.0	723.0
50°	692.9	680.7	673.6	662.4	658.3	659.3	658.3	662.4	673.6	680.7	692.9
52.5°	656.3	641.6	630.4	620.9	617.6	617.0	617.6	620.9	630.4	641.6	656.3
55°	603.4	581.0	562.7	557.6	556.6	558.6	556.6	557.6	562.7	581.0	603.4
57.5°	538.4	516.5	501.4	497.3	493.9	490.6	493.9	497.3	501.4	516.5	538.4
60°	494.5	474.1	459.9	455.8	446.7	442.6	446.7	455.8	459.9	474.1	494.5
62.5°	455.4	431.0	420.0	411.9	405.2	398.6	405.2	411.9	420.0	431.0	455.4
65°	398.9	370.4	359.2	352.0	339.8	336.8	339.8	352.0	359.2	370.4	398.9
67.5°	337.0	312.2	298.1	288.6	280.8	280.6	280.8	288.6	298.1	312.2	337.0
70°	297.1	274.7	261.5	250.3	244.2	243.2	244.2	250.3	261.5	274.7	297.1
72.5°	258.0	236.5	224.9	214.5	209.2	208.2	209.2	214.5	224.9	236.5	258.0
75°	202.5	182.1	173.0	165.8	161.8	159.7	161.8	165.8	173.0	182.1	202.5
77.5°	149.8	133.3	128.6	121.3	117.8	117.6	117.8	121.3	128.6	133.3	149.8
80°	118.0	104.8	97.7	93.6	92.6	91.6	92.6	93.6	97.7	104.8	118.0
82.5°	85.5	77.9	73.3	70.8	70.6	68.8	70.6	70.8	73.3	77.9	85.5
85°	45.8	43.8	42.7	41.7	40.7	40.7	40.7	41.7	42.7	43.8	45.8
87.5°	18.7	19.5	19.5	20.3	21.2	20.3	21.2	20.3	19.5	19.5	18.7
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-050D-835-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1075.5	1075.5	1075.5	1075.5
2.5°	1089.3	1087.7	1082.8	1082.8
5°	1104.0	1099.9	1088.7	1080.6
7.5°	1107.4	1101.5	1086.9	1070.4
10°	1105.0	1099.9	1083.6	1062.2
12.5°	1100.1	1094.2	1078.7	1050.9
15°	1089.7	1080.6	1066.3	1031.7
17.5°	1073.2	1065.1	1048.2	1004.3
20°	1060.2	1052.1	1032.7	983.9
22.5°	1044.7	1036.6	1016.5	956.2
25°	1019.5	1007.3	990.0	908.6
27.5°	991.4	978.2	953.6	856.3
30°	972.7	955.4	921.8	818.1
32.5°	952.4	931.8	874.6	774.9
35°	915.7	898.4	817.0	690.9
37.5°	875.8	863.2	764.9	596.2
40°	846.5	836.4	715.3	539.3
42.5°	810.7	807.9	660.8	496.9
45°	762.1	762.1	628.8	445.7
47.5°	712.4	712.8	584.0	432.2
50°	680.7	670.5	551.5	431.4
52.5°	648.1	616.0	511.6	399.7
55°	594.2	540.3	449.7	363.2
57.5°	539.9	471.1	353.7	351.2
60°	497.5	422.3	270.6	327.6
62.5°	456.8	366.9	211.2	303.2
65°	396.8	251.3	164.8	252.3
67.5°	339.6	159.5	125.4	182.3
70°	302.2	118.0	89.5	142.4
72.5°	263.9	92.8	75.7	122.9
75°	206.5	66.1	76.3	95.6
77.5°	154.7	50.3	68.2	66.7
80°	118.0	39.7	56.0	52.9
82.5°	87.9	31.5	39.7	39.1
85°	43.8	18.3	20.3	16.3
87.5°	17.9	9.0	7.3	4.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)