

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-840-1D-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-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

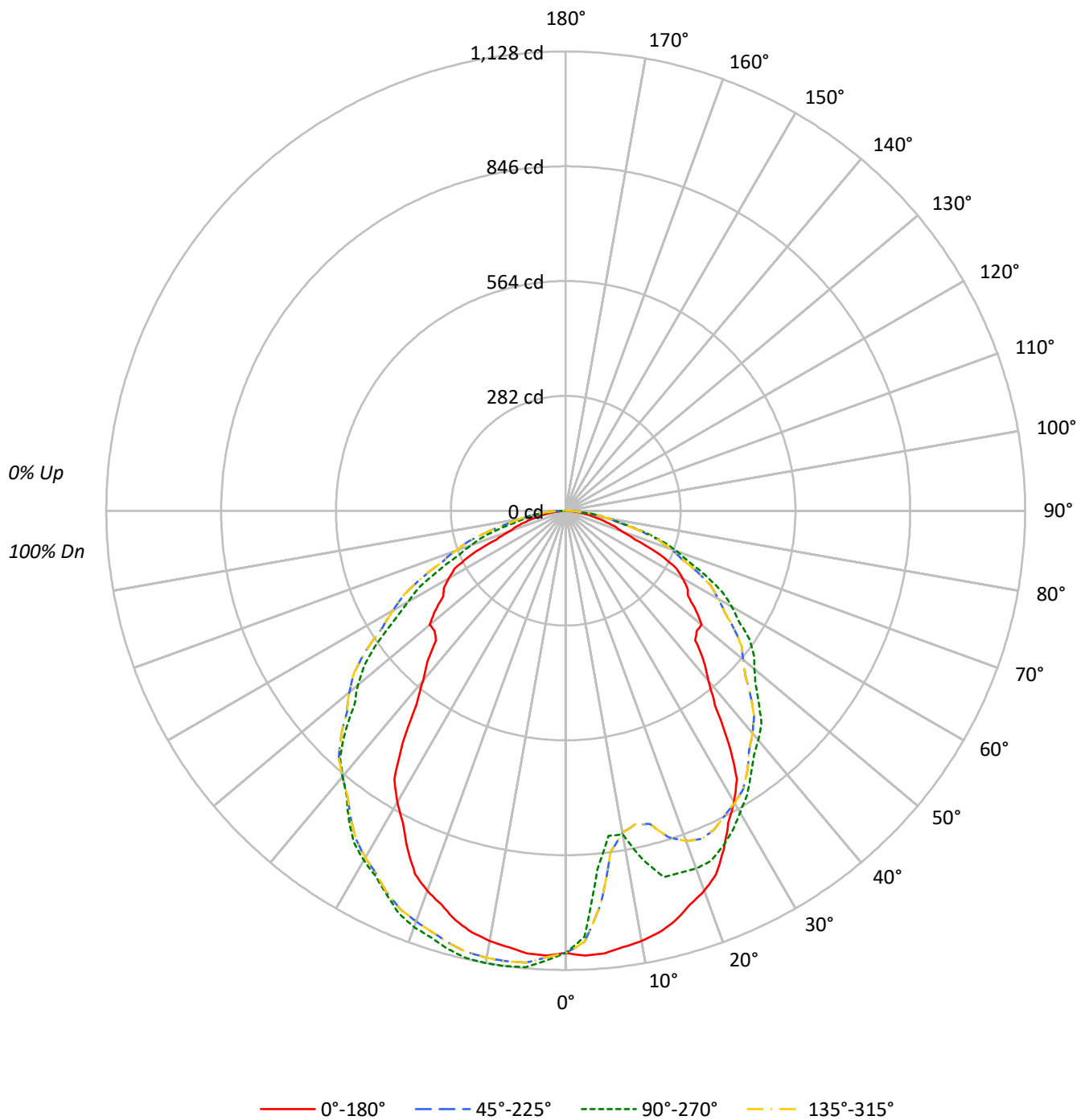
Lumens per Lamp: N/A
Luminaire Lumens: 2815.0 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

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

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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				10
RW	70	50	30	10	70	50	30	10	50	30	10		50	30	10		50
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	105	100	97	106	102	98	95	98	95	92		94	92	89		91
2	99	91	85	79	97	90	83	78	86	81	76		83	78	75		80
3	91	81	73	66	88	79	72	66	76	70	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	42	69	57	48	42	55	47	42		53	47	41		52
7	66	52	44	38	64	51	43	37	50	43	37		48	42	37		47
8	61	48	39	33	60	47	39	33	46	38	33		44	38	33		43
9	57	44	36	30	56	43	35	30	42	35	30		41	34	30		40
10	54	40	33	27	52	40	32	27	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	6682	6682	6682	6682
5°	6739	5464	6739	6949
10°	6701	5039	6701	7048
15°	6636	5929	6636	7101
20°	6505	6121	6505	7124
25°	6229	6180	6229	7058
30°	5869	6080	5869	7043
35°	5240	5950	5240	6968
40°	4374	5908	4374	6841
45°	3915	5838	3915	6651
50°	4170	5783	4170	6373
55°	3934	5908	3934	6050
60°	4071	5790	4071	5500
65°	3710	5535	3710	4951
70°	2588	5194	2588	4417
75°	2296	4591	2296	3836
80°	1891	3567	1891	3276
85°	1157	2463	1157	2901

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6794 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	97.9	3.5
10°-20°	278.3	9.9
20°-30°	430.1	15.3
30°-40°	513.8	18.3
40°-50°	517.2	18.4
50°-60°	449.0	16.0
60°-70°	317.8	11.3
70°-80°	168.1	6.0
80°-90°	42.8	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°	806.3	28.6
0°-40°	1320.1	46.9
0°-60°	2286.3	81.2
0°-90°	2815.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2815.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1086	1086	1086	1086	1086	
5°	1091	885	1091	1125	1091	103
15°	1042	931	1042	1115	1042	293
25°	918	911	918	1040	918	421
35°	698	792	698	928	698	431
45°	450	671	450	765	450	363
55°	367	551	367	564	367	338
65°	255	380	255	340	255	243
75°	97	193	97	161	97	102
85°	16	35	16	41	16	24
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°	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3
2.5°	1093.7	1085.5	1082.2	1075.6	1063.3	1056.7	1061.6	1053.4	1056.7	1047.7	1056.7
5°	1091.4	1072.9	1057.5	1031.8	994.8	951.7	941.4	914.7	898.2	884.9	898.2
7.5°	1081.2	1049.5	1002.4	923.9	860.8	830.0	822.4	814.8	812.7	805.9	812.7
10°	1072.9	1029.8	942.4	854.0	809.8	795.5	798.5	801.6	807.8	806.8	807.8
12.5°	1061.4	995.2	879.9	818.7	789.3	788.9	811.7	852.6	881.0	879.1	881.0
15°	1042.1	929.1	821.1	782.1	772.8	820.1	903.4	922.9	930.1	931.1	930.1
17.5°	1014.4	864.3	783.5	757.8	789.3	892.1	917.3	926.2	932.3	932.8	932.3
20°	993.8	831.4	764.6	747.2	830.4	896.2	911.6	922.9	933.2	935.2	933.2
22.5°	965.8	808.4	744.9	739.8	853.4	892.1	905.8	922.9	931.5	931.1	931.5
25°	917.8	780.0	720.4	731.7	856.1	870.5	897.2	908.5	909.5	910.6	909.5
27.5°	864.9	755.2	691.9	737.1	839.4	849.7	878.5	884.2	888.2	886.5	888.2
30°	826.3	737.9	672.1	737.9	826.3	832.5	861.2	865.3	860.2	856.1	860.2
32.5°	782.7	716.5	653.2	732.1	806.6	815.2	838.2	836.6	831.4	828.1	831.4
35°	697.8	680.3	618.7	713.2	772.8	784.1	797.5	796.5	795.5	792.4	795.5
37.5°	602.2	637.6	584.6	683.8	740.4	739.5	759.5	763.8	762.8	758.9	762.8
40°	544.7	602.2	563.2	660.8	717.3	709.1	734.8	740.0	738.9	735.8	738.9
42.5°	501.9	555.4	538.5	632.9	689.4	679.5	711.0	716.1	713.4	711.2	713.4
45°	450.1	459.4	500.5	587.9	642.3	641.3	675.2	680.3	674.2	671.1	674.2
47.5°	436.6	370.4	459.0	535.6	595.7	599.6	636.0	640.5	634.9	632.3	634.9
50°	435.8	326.8	428.6	495.4	565.2	572.4	610.5	612.5	605.3	604.3	605.3
52.5°	403.7	302.1	393.2	460.0	538.9	547.8	582.5	582.1	581.5	582.9	581.5
55°	366.9	272.3	332.0	408.0	498.4	509.7	540.6	541.6	548.8	550.9	548.8
57.5°	354.8	238.6	275.2	363.0	457.7	466.6	495.6	498.0	503.0	502.8	503.0
60°	330.9	214.8	241.5	335.0	426.5	437.8	463.5	467.6	471.7	470.7	471.7
62.5°	306.3	198.3	225.1	312.0	396.9	409.0	426.5	433.9	435.5	433.7	435.5
65°	254.9	176.8	199.4	275.4	351.5	364.8	376.1	381.3	382.3	380.3	382.3
67.5°	184.2	156.8	179.2	239.3	299.3	314.3	320.9	323.9	322.9	326.6	322.9
70°	143.9	142.9	164.4	213.8	267.2	280.6	284.7	287.8	286.7	288.8	286.7
72.5°	124.1	131.3	148.8	187.5	231.0	244.4	246.9	247.5	250.6	248.5	250.6
75°	96.6	112.0	123.3	148.0	180.9	190.1	191.2	192.2	190.1	193.2	190.1
77.5°	67.4	85.3	95.4	109.6	131.8	137.5	137.3	137.9	136.3	136.1	136.3
80°	53.4	64.7	74.0	83.2	99.7	103.8	102.8	101.7	101.7	100.7	101.7
82.5°	39.5	45.8	54.3	61.0	71.7	72.6	74.0	72.1	72.1	73.6	72.1
85°	16.4	21.6	27.7	30.8	34.9	36.0	33.9	37.0	34.9	34.9	34.9
87.5°	4.1	6.6	9.9	11.5	12.3	11.5	11.5	9.9	9.9	9.9	9.9
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°	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3
2.5°	1053.4	1061.6	1056.7	1063.3	1075.6	1082.2	1085.5	1093.7	1093.7	1098.6	1100.3
5°	914.7	941.4	951.7	994.8	1031.8	1057.5	1072.9	1091.4	1099.7	1111.0	1115.1
7.5°	814.8	822.4	830.0	860.8	923.9	1002.4	1049.5	1081.2	1097.8	1112.6	1118.6
10°	801.6	798.5	795.5	809.8	854.0	942.4	1029.8	1072.9	1094.5	1111.0	1116.1
12.5°	852.6	811.7	788.9	789.3	818.7	879.9	995.2	1061.4	1089.6	1105.2	1111.2
15°	922.9	903.4	820.1	772.8	782.1	821.1	929.1	1042.1	1077.0	1091.4	1100.7
17.5°	926.2	917.3	892.1	789.3	757.8	783.5	864.3	1014.4	1058.8	1075.8	1084.0
20°	922.9	911.6	896.2	830.4	747.2	764.6	831.4	993.8	1043.1	1062.7	1070.9
22.5°	922.9	905.8	892.1	853.4	739.8	744.9	808.4	965.8	1026.7	1047.0	1055.3
25°	908.5	897.2	870.5	856.1	731.7	720.4	780.0	917.8	1000.0	1017.4	1029.8
27.5°	884.2	878.5	849.7	839.4	737.1	691.9	755.2	864.9	963.2	988.0	1001.4
30°	865.3	861.2	832.5	826.3	737.9	672.1	737.9	826.3	931.1	965.0	982.5
32.5°	836.6	838.2	815.2	806.6	732.1	653.2	716.5	782.7	883.4	941.2	961.9
35°	796.5	797.5	784.1	772.8	713.2	618.7	680.3	697.8	825.3	907.5	924.9
37.5°	763.8	759.5	739.5	740.4	683.8	584.6	637.6	602.2	772.6	871.9	884.7
40°	740.0	734.8	709.1	717.3	660.8	563.2	602.2	544.7	722.5	844.8	855.1
42.5°	716.1	711.0	679.5	689.4	632.9	538.5	555.4	501.9	667.4	816.0	818.9
45°	680.3	675.2	641.3	642.3	587.9	500.5	459.4	450.1	635.1	769.8	769.8
47.5°	640.5	636.0	599.6	595.7	535.6	459.0	370.4	436.6	589.9	720.0	719.6
50°	612.5	610.5	572.4	565.2	495.4	428.6	326.8	435.8	557.0	677.3	687.5
52.5°	582.1	582.5	547.8	538.9	460.0	393.2	302.1	403.7	516.7	622.2	654.7
55°	541.6	540.6	509.7	498.4	408.0	332.0	272.3	366.9	454.3	545.7	600.2
57.5°	498.0	495.6	466.6	457.7	363.0	275.2	238.6	354.8	357.2	475.8	545.3
60°	467.6	463.5	437.8	426.5	335.0	241.5	214.8	330.9	273.4	426.5	502.6
62.5°	433.9	426.5	409.0	396.9	312.0	225.1	198.3	306.3	213.4	370.6	461.4
65°	381.3	376.1	364.8	351.5	275.4	199.4	176.8	254.9	166.5	253.8	400.8
67.5°	323.9	320.9	314.3	299.3	239.3	179.2	156.8	184.2	126.6	161.1	343.1
70°	287.8	284.7	280.6	267.2	213.8	164.4	142.9	143.9	90.4	119.2	305.2
72.5°	247.5	246.9	244.4	231.0	187.5	148.8	131.3	124.1	76.5	93.7	266.6
75°	192.2	191.2	190.1	180.9	148.0	123.3	112.0	96.6	77.1	66.8	208.6
77.5°	137.9	137.3	137.5	131.8	109.6	95.4	85.3	67.4	68.9	50.8	156.2
80°	101.7	102.8	103.8	99.7	83.2	74.0	64.7	53.4	56.5	40.1	119.2
82.5°	72.1	74.0	72.6	71.7	61.0	54.3	45.8	39.5	40.1	31.9	88.8
85°	37.0	33.9	36.0	34.9	30.8	27.7	21.6	16.4	20.6	18.5	44.2
87.5°	9.9	11.5	11.5	12.3	11.5	9.9	6.6	4.1	7.4	9.0	18.1
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°	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3	1086.3
2.5°	1097.8	1097.8	1105.2	1106.9	1108.5	1106.0	1108.5	1106.9	1105.2	1097.8	1097.8
5°	1114.0	1114.0	1124.3	1127.4	1127.4	1125.4	1127.4	1127.4	1124.3	1114.0	1114.0
7.5°	1115.5	1117.1	1127.4	1129.7	1131.5	1128.4	1131.5	1129.7	1127.4	1117.1	1115.5
10°	1113.0	1117.1	1127.4	1130.5	1131.5	1128.4	1131.5	1130.5	1127.4	1117.1	1113.0
12.5°	1109.7	1113.0	1123.3	1125.6	1127.4	1125.1	1127.4	1125.6	1123.3	1113.0	1109.7
15°	1098.6	1102.7	1114.0	1116.1	1118.2	1115.1	1118.2	1116.1	1114.0	1102.7	1098.6
17.5°	1083.2	1088.4	1098.6	1101.9	1102.9	1099.0	1102.9	1101.9	1098.6	1088.4	1083.2
20°	1070.9	1076.0	1086.3	1090.4	1091.4	1088.4	1091.4	1090.4	1086.3	1076.0	1070.9
22.5°	1055.3	1063.7	1073.1	1074.8	1073.3	1070.3	1073.3	1074.8	1073.1	1063.7	1055.3
25°	1032.9	1040.0	1043.1	1043.1	1043.1	1040.0	1043.1	1043.1	1043.1	1040.0	1032.9
27.5°	1004.3	1008.0	1009.8	1011.5	1013.5	1011.5	1013.5	1011.5	1009.8	1008.0	1004.3
30°	984.6	982.5	987.6	991.7	993.8	991.7	993.8	991.7	987.6	982.5	984.6
32.5°	957.4	958.7	966.3	968.7	969.1	967.1	969.1	968.7	966.3	958.7	957.4
35°	917.8	922.9	928.0	930.1	931.1	928.0	931.1	930.1	928.0	922.9	917.8
37.5°	875.8	884.9	888.6	886.3	886.5	883.2	886.5	886.3	888.6	884.9	875.8
40°	847.9	856.1	858.1	855.1	856.1	852.0	856.1	855.1	858.1	856.1	847.9
42.5°	821.6	828.1	826.1	822.2	821.6	819.9	821.6	822.2	826.1	828.1	821.6
45°	778.0	781.1	771.8	768.7	766.7	764.6	766.7	768.7	771.8	781.1	778.0
47.5°	730.3	726.2	717.3	712.6	706.9	703.0	706.9	712.6	717.3	726.2	730.3
50°	699.9	687.5	680.3	669.0	664.9	666.0	664.9	669.0	680.3	687.5	699.9
52.5°	662.9	648.1	636.8	627.1	623.8	623.2	623.8	627.1	636.8	648.1	662.9
55°	609.4	586.8	568.3	563.2	562.2	564.2	562.2	563.2	568.3	586.8	609.4
57.5°	543.9	521.7	506.5	502.3	498.9	495.6	498.9	502.3	506.5	521.7	543.9
60°	499.5	478.9	464.5	460.4	451.2	447.1	451.2	460.4	464.5	478.9	499.5
62.5°	460.0	435.3	424.2	416.0	409.2	402.7	409.2	416.0	424.2	435.3	460.0
65°	402.9	374.1	362.8	355.6	343.3	340.2	343.3	355.6	362.8	374.1	402.9
67.5°	340.4	315.3	301.1	291.5	283.6	283.4	283.6	291.5	301.1	315.3	340.4
70°	300.1	277.5	264.1	252.8	246.7	245.6	246.7	252.8	264.1	277.5	300.1
72.5°	260.6	238.8	227.1	216.6	211.3	210.3	211.3	216.6	227.1	238.8	260.6
75°	204.5	184.0	174.7	167.5	163.4	161.4	163.4	167.5	174.7	184.0	204.5
77.5°	151.3	134.6	129.9	122.5	119.0	118.8	119.0	122.5	129.9	134.6	151.3
80°	119.2	105.9	98.7	94.5	93.5	92.5	93.5	94.5	98.7	105.9	119.2
82.5°	86.3	78.7	74.0	71.5	71.3	69.5	71.3	71.5	74.0	78.7	86.3
85°	46.2	44.2	43.2	42.1	41.1	41.1	41.1	42.1	43.2	44.2	46.2
87.5°	18.9	19.7	19.7	20.6	21.4	20.6	21.4	20.6	19.7	19.7	18.9
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-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1086.3	1086.3	1086.3	1086.3
2.5°	1100.3	1098.6	1093.7	1093.7
5°	1115.1	1111.0	1099.7	1091.4
7.5°	1118.6	1112.6	1097.8	1081.2
10°	1116.1	1111.0	1094.5	1072.9
12.5°	1111.2	1105.2	1089.6	1061.4
15°	1100.7	1091.4	1077.0	1042.1
17.5°	1084.0	1075.8	1058.8	1014.4
20°	1070.9	1062.7	1043.1	993.8
22.5°	1055.3	1047.0	1026.7	965.8
25°	1029.8	1017.4	1000.0	917.8
27.5°	1001.4	988.0	963.2	864.9
30°	982.5	965.0	931.1	826.3
32.5°	961.9	941.2	883.4	782.7
35°	924.9	907.5	825.3	697.8
37.5°	884.7	871.9	772.6	602.2
40°	855.1	844.8	722.5	544.7
42.5°	818.9	816.0	667.4	501.9
45°	769.8	769.8	635.1	450.1
47.5°	719.6	720.0	589.9	436.6
50°	687.5	677.3	557.0	435.8
52.5°	654.7	622.2	516.7	403.7
55°	600.2	545.7	454.3	366.9
57.5°	545.3	475.8	357.2	354.8
60°	502.6	426.5	273.4	330.9
62.5°	461.4	370.6	213.4	306.3
65°	400.8	253.8	166.5	254.9
67.5°	343.1	161.1	126.6	184.2
70°	305.2	119.2	90.4	143.9
72.5°	266.6	93.7	76.5	124.1
75°	208.6	66.8	77.1	96.6
77.5°	156.2	50.8	68.9	67.4
80°	119.2	40.1	56.5	53.4
82.5°	88.8	31.9	40.1	39.5
85°	44.2	18.5	20.6	16.4
87.5°	18.1	9.0	7.4	4.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)