

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-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-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

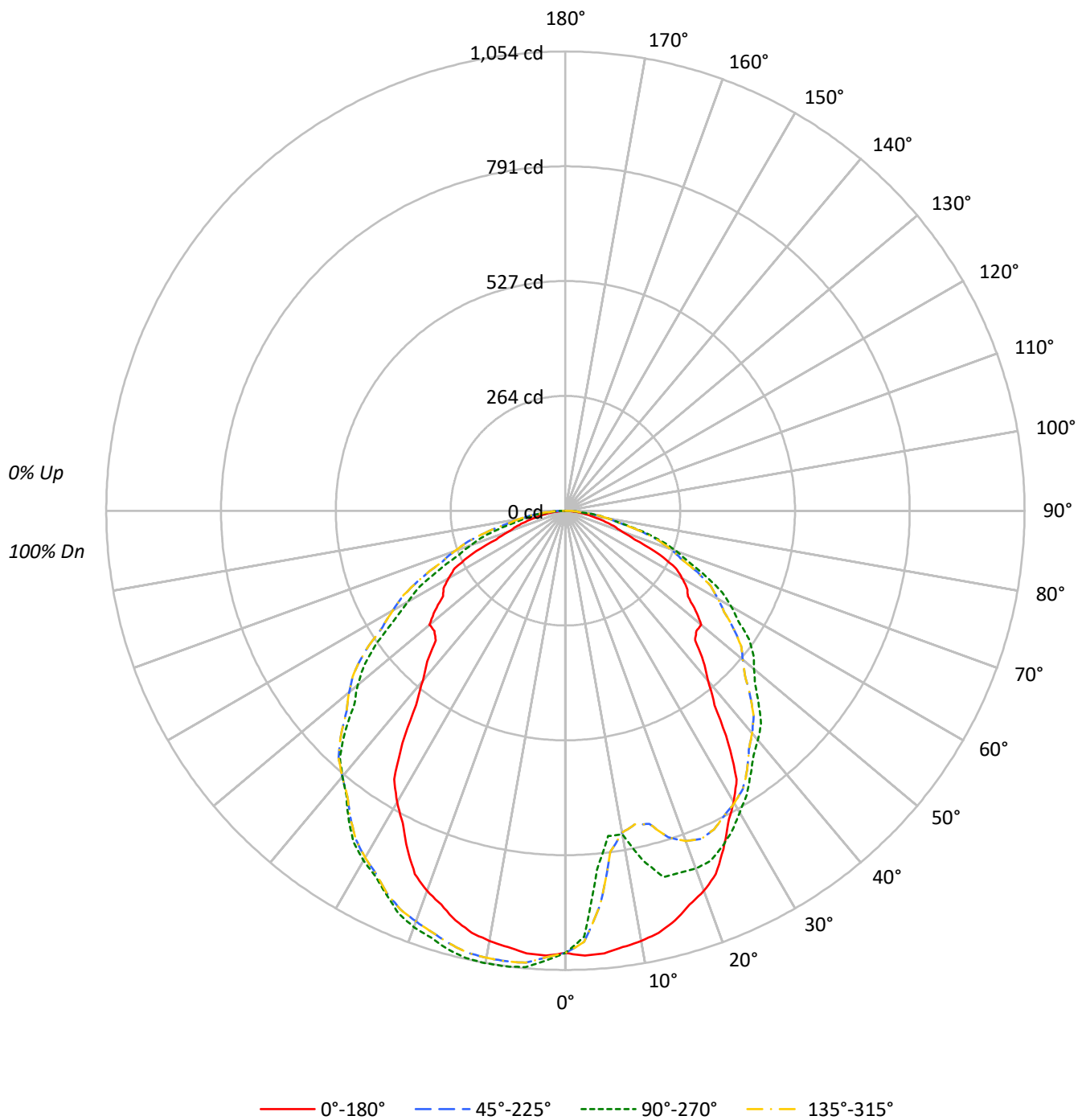
Lumens per Lamp: N/A
Luminaire Lumens: 2630.6 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

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				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°	6244	6244	6244	6244
5°	6297	5106	6297	6493
10°	6262	4709	6262	6586
15°	6201	5541	6201	6635
20°	6079	5721	6079	6657
25°	5820	5775	5820	6596
30°	5484	5682	5484	6582
35°	4896	5560	4896	6512
40°	4087	5521	4087	6393
45°	3659	5455	3659	6215
50°	3896	5404	3896	5955
55°	3677	5521	3677	5655
60°	3804	5411	3804	5140
65°	3467	5171	3467	4627
70°	2419	4854	2419	4127
75°	2146	4292	2146	3584
80°	1768	3333	1768	3060
85°	1087	2308	1087	2710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6349 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	91.5	3.5
10°-20°	260.1	9.9
20°-30°	401.9	15.3
30°-40°	480.2	18.3
40°-50°	483.3	18.4
50°-60°	419.6	16.0
60°-70°	297.0	11.3
70°-80°	157.1	6.0
80°-90°	40.0	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°	753.5	28.6
0°-40°	1233.7	46.9
0°-60°	2136.5	81.2
0°-90°	2630.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	2630.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1015	1015	1015	1015	1015	
5°	1020	827	1020	1052	1020	97
15°	974	870	974	1042	974	274
25°	858	851	858	972	858	393
35°	652	740	652	867	652	403
45°	421	627	421	714	421	339
55°	343	515	343	527	343	315
65°	238	355	238	318	238	227
75°	90	181	90	151	90	95
85°	15	33	15	38	15	22
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°	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1
2.5°	1022.0	1014.4	1011.3	1005.1	993.6	987.5	992.1	984.4	987.5	979.0	987.5
5°	1019.9	1002.6	988.2	964.2	929.7	889.3	879.7	854.7	839.4	826.9	839.4
7.5°	1010.3	980.8	936.8	863.4	804.4	775.6	768.5	761.4	759.5	753.1	759.5
10°	1002.6	962.3	880.7	798.1	756.8	743.3	746.2	749.1	754.9	753.9	754.9
12.5°	991.9	930.0	822.3	765.0	737.6	737.2	758.5	796.7	823.2	821.5	823.2
15°	973.8	868.2	767.4	730.9	722.2	766.4	844.2	862.4	869.2	870.1	869.2
17.5°	947.9	807.7	732.2	708.2	737.6	833.6	857.2	865.5	871.3	871.7	871.3
20°	928.7	777.0	714.5	698.2	776.0	837.5	851.9	862.4	872.0	874.0	872.0
22.5°	902.6	755.4	696.1	691.3	797.5	833.6	846.5	862.4	870.5	870.1	870.5
25°	857.6	728.9	673.2	683.8	800.0	813.5	838.4	849.0	849.9	850.9	849.9
27.5°	808.3	705.7	646.5	688.8	784.4	794.1	820.9	826.3	830.0	828.4	830.0
30°	772.2	689.6	628.1	689.6	772.2	777.9	804.8	808.6	803.8	800.0	803.8
32.5°	731.4	669.6	610.4	684.2	753.7	761.8	783.3	781.8	777.0	773.9	777.0
35°	652.1	635.8	578.2	666.5	722.2	732.8	745.3	744.3	743.3	740.5	743.3
37.5°	562.8	595.8	546.3	639.0	691.9	691.1	709.7	713.8	712.8	709.2	712.8
40°	509.0	562.8	526.3	617.5	670.4	662.7	686.7	691.5	690.5	687.6	690.5
42.5°	469.1	519.0	503.2	591.4	644.2	635.0	664.4	669.2	666.7	664.6	666.7
45°	420.7	429.3	467.7	549.3	600.2	599.3	631.0	635.8	630.0	627.1	630.0
47.5°	408.0	346.1	428.9	500.6	556.6	560.3	594.3	598.5	593.3	590.8	593.3
50°	407.2	305.4	400.5	462.9	528.2	534.9	570.5	572.4	565.7	564.7	565.7
52.5°	377.2	282.4	367.4	429.9	503.6	511.9	544.3	544.0	543.4	544.7	543.4
55°	342.9	254.5	310.2	381.3	465.8	476.4	505.2	506.1	512.8	514.8	512.8
57.5°	331.5	223.0	257.2	339.2	427.8	436.0	463.1	465.4	470.0	469.8	470.0
60°	309.2	200.7	225.7	313.1	398.6	409.1	433.1	437.0	440.8	439.9	440.8
62.5°	286.2	185.4	210.3	291.6	370.9	382.2	398.6	405.5	407.0	405.3	407.0
65°	238.2	165.2	186.3	257.4	328.5	340.9	351.5	356.3	357.3	355.3	357.3
67.5°	172.1	146.6	167.5	223.6	279.7	293.7	299.8	302.7	301.8	305.2	301.8
70°	134.5	133.5	153.7	199.8	249.7	262.2	266.0	268.9	267.9	269.9	267.9
72.5°	116.0	122.7	139.1	175.2	215.9	228.4	230.7	231.3	234.1	232.2	234.1
75°	90.3	104.7	115.2	138.3	169.0	177.7	178.6	179.6	177.7	180.6	177.7
77.5°	63.0	79.7	89.1	102.4	123.1	128.5	128.3	128.9	127.3	127.2	127.3
80°	49.9	60.5	69.1	77.8	93.2	97.0	96.0	95.1	95.1	94.1	95.1
82.5°	36.9	42.8	50.7	57.0	67.0	67.8	69.1	67.4	67.4	68.8	67.4
85°	15.4	20.2	25.9	28.8	32.7	33.6	31.7	34.6	32.7	32.7	32.7
87.5°	3.8	6.1	9.2	10.8	11.5	10.8	10.8	9.2	9.2	9.2	9.2
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°	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1
2.5°	984.4	992.1	987.5	993.6	1005.1	1011.3	1014.4	1022.0	1022.0	1026.7	1028.2
5°	854.7	879.7	889.3	929.7	964.2	988.2	1002.6	1019.9	1027.6	1038.2	1042.0
7.5°	761.4	768.5	775.6	804.4	863.4	936.8	980.8	1010.3	1025.9	1039.7	1045.3
10°	749.1	746.2	743.3	756.8	798.1	880.7	962.3	1002.6	1022.8	1038.2	1043.0
12.5°	796.7	758.5	737.2	737.6	765.0	822.3	930.0	991.9	1018.2	1032.8	1038.4
15°	862.4	844.2	766.4	722.2	730.9	767.4	868.2	973.8	1006.5	1019.9	1028.6
17.5°	865.5	857.2	833.6	737.6	708.2	732.2	807.7	947.9	989.4	1005.3	1013.0
20°	862.4	851.9	837.5	776.0	698.2	714.5	777.0	928.7	974.8	993.0	1000.7
22.5°	862.4	846.5	833.6	797.5	691.3	696.1	755.4	902.6	959.4	978.4	986.1
25°	849.0	838.4	813.5	800.0	683.8	673.2	728.9	857.6	934.5	950.8	962.3
27.5°	826.3	820.9	794.1	784.4	688.8	646.5	705.7	808.3	900.1	923.3	935.8
30°	808.6	804.8	777.9	772.2	689.6	628.1	689.6	772.2	870.1	901.8	918.1
32.5°	781.8	783.3	761.8	753.7	684.2	610.4	669.6	731.4	825.6	879.5	898.9
35°	744.3	745.3	732.8	722.2	666.5	578.2	635.8	652.1	771.2	848.0	864.4
37.5°	713.8	709.7	691.1	691.9	639.0	546.3	595.8	562.8	722.0	814.8	826.7
40°	691.5	686.7	662.7	670.4	617.5	526.3	562.8	509.0	675.2	789.4	799.0
42.5°	669.2	664.4	635.0	644.2	591.4	503.2	519.0	469.1	623.7	762.5	765.2
45°	635.8	631.0	599.3	600.2	549.3	467.7	429.3	420.7	593.5	719.3	719.3
47.5°	598.5	594.3	560.3	556.6	500.6	428.9	346.1	408.0	551.3	672.8	672.5
50°	572.4	570.5	534.9	528.2	462.9	400.5	305.4	407.2	520.5	632.9	642.5
52.5°	544.0	544.3	511.9	503.6	429.9	367.4	282.4	377.2	482.9	581.4	611.8
55°	506.1	505.2	476.4	465.8	381.3	310.2	254.5	342.9	424.5	510.0	560.9
57.5°	465.4	463.1	436.0	427.8	339.2	257.2	223.0	331.5	333.8	444.7	509.6
60°	437.0	433.1	409.1	398.6	313.1	225.7	200.7	309.2	255.5	398.6	469.6
62.5°	405.5	398.6	382.2	370.9	291.6	210.3	185.4	286.2	199.4	346.3	431.2
65°	356.3	351.5	340.9	328.5	257.4	186.3	165.2	238.2	155.6	237.2	374.6
67.5°	302.7	299.8	293.7	279.7	223.6	167.5	146.6	172.1	118.3	150.6	320.6
70°	268.9	266.0	262.2	249.7	199.8	153.7	133.5	134.5	84.5	111.4	285.2
72.5°	231.3	230.7	228.4	215.9	175.2	139.1	122.7	116.0	71.5	87.6	249.1
75°	179.6	178.6	177.7	169.0	138.3	115.2	104.7	90.3	72.0	62.4	195.0
77.5°	128.9	128.3	128.5	123.1	102.4	89.1	79.7	63.0	64.3	47.4	146.0
80°	95.1	96.0	97.0	93.2	77.8	69.1	60.5	49.9	52.8	37.5	111.4
82.5°	67.4	69.1	67.8	67.0	57.0	50.7	42.8	36.9	37.5	29.8	83.0
85°	34.6	31.7	33.6	32.7	28.8	25.9	20.2	15.4	19.2	17.3	41.3
87.5°	9.2	10.8	10.8	11.5	10.8	9.2	6.1	3.8	6.9	8.5	16.9
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°	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1	1015.1
2.5°	1025.9	1025.9	1032.8	1034.3	1035.9	1033.6	1035.9	1034.3	1032.8	1025.9	1025.9
5°	1041.1	1041.1	1050.7	1053.5	1053.5	1051.6	1053.5	1053.5	1050.7	1041.1	1041.1
7.5°	1042.4	1043.9	1053.5	1055.7	1057.4	1054.5	1057.4	1055.7	1053.5	1043.9	1042.4
10°	1040.1	1043.9	1053.5	1056.4	1057.4	1054.5	1057.4	1056.4	1053.5	1043.9	1040.1
12.5°	1037.0	1040.1	1049.7	1051.8	1053.5	1051.4	1053.5	1051.8	1049.7	1040.1	1037.0
15°	1026.7	1030.5	1041.1	1043.0	1044.9	1042.0	1044.9	1043.0	1041.1	1030.5	1026.7
17.5°	1012.3	1017.1	1026.7	1029.7	1030.7	1027.0	1030.7	1029.7	1026.7	1017.1	1012.3
20°	1000.7	1005.5	1015.1	1019.0	1019.9	1017.1	1019.9	1019.0	1015.1	1005.5	1000.7
22.5°	986.1	994.0	1002.8	1004.4	1003.0	1000.2	1003.0	1004.4	1002.8	994.0	986.1
25°	965.2	971.9	974.8	974.8	974.8	971.9	974.8	974.8	974.8	971.9	965.2
27.5°	938.5	942.0	943.7	945.2	947.1	945.2	947.1	945.2	943.7	942.0	938.5
30°	920.1	918.1	922.9	926.8	928.7	926.8	928.7	926.8	922.9	918.1	920.1
32.5°	894.7	895.9	903.0	905.3	905.6	903.7	905.6	905.3	903.0	895.9	894.7
35°	857.6	862.4	867.2	869.2	870.1	867.2	870.1	869.2	867.2	862.4	857.6
37.5°	818.4	826.9	830.4	828.2	828.4	825.4	828.4	828.2	830.4	826.9	818.4
40°	792.3	800.0	801.9	799.0	800.0	796.2	800.0	799.0	801.9	800.0	792.3
42.5°	767.7	773.9	772.0	768.3	767.7	766.2	767.7	768.3	772.0	773.9	767.7
45°	727.0	729.9	721.3	718.4	716.5	714.5	716.5	718.4	721.3	729.9	727.0
47.5°	682.5	678.6	670.4	665.9	660.6	656.9	660.6	665.9	670.4	678.6	682.5
50°	654.0	642.5	635.8	625.2	621.4	622.3	621.4	625.2	635.8	642.5	654.0
52.5°	619.5	605.6	595.1	586.0	583.0	582.4	583.0	586.0	595.1	605.6	619.5
55°	569.5	548.4	531.1	526.3	525.3	527.3	525.3	526.3	531.1	548.4	569.5
57.5°	508.2	487.5	473.3	469.4	466.2	463.1	466.2	469.4	473.3	487.5	508.2
60°	466.7	447.5	434.1	430.3	421.6	417.8	421.6	430.3	434.1	447.5	466.7
62.5°	429.9	406.8	396.4	388.8	382.4	376.3	382.4	388.8	396.4	406.8	429.9
65°	376.5	349.6	339.0	332.3	320.8	317.9	320.8	332.3	339.0	349.6	376.5
67.5°	318.1	294.6	281.4	272.4	265.1	264.9	265.1	272.4	281.4	294.6	318.1
70°	280.4	259.3	246.8	236.3	230.5	229.5	230.5	236.3	246.8	259.3	280.4
72.5°	243.6	223.2	212.2	202.5	197.5	196.5	197.5	202.5	212.2	223.2	243.6
75°	191.1	171.9	163.3	156.5	152.7	150.8	152.7	156.5	163.3	171.9	191.1
77.5°	141.4	125.8	121.4	114.5	111.2	111.0	111.2	114.5	121.4	125.8	141.4
80°	111.4	98.9	92.2	88.4	87.4	86.4	87.4	88.4	92.2	98.9	111.4
82.5°	80.7	73.6	69.1	66.8	66.7	64.9	66.7	66.8	69.1	73.6	80.7
85°	43.2	41.3	40.3	39.4	38.4	38.4	38.4	39.4	40.3	41.3	43.2
87.5°	17.7	18.4	18.4	19.2	20.0	19.2	20.0	19.2	18.4	18.4	17.7
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-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1015.1	1015.1	1015.1	1015.1
2.5°	1028.2	1026.7	1022.0	1022.0
5°	1042.0	1038.2	1027.6	1019.9
7.5°	1045.3	1039.7	1025.9	1010.3
10°	1043.0	1038.2	1022.8	1002.6
12.5°	1038.4	1032.8	1018.2	991.9
15°	1028.6	1019.9	1006.5	973.8
17.5°	1013.0	1005.3	989.4	947.9
20°	1000.7	993.0	974.8	928.7
22.5°	986.1	978.4	959.4	902.6
25°	962.3	950.8	934.5	857.6
27.5°	935.8	923.3	900.1	808.3
30°	918.1	901.8	870.1	772.2
32.5°	898.9	879.5	825.6	731.4
35°	864.4	848.0	771.2	652.1
37.5°	826.7	814.8	722.0	562.8
40°	799.0	789.4	675.2	509.0
42.5°	765.2	762.5	623.7	469.1
45°	719.3	719.3	593.5	420.7
47.5°	672.5	672.8	551.3	408.0
50°	642.5	632.9	520.5	407.2
52.5°	611.8	581.4	482.9	377.2
55°	560.9	510.0	424.5	342.9
57.5°	509.6	444.7	333.8	331.5
60°	469.6	398.6	255.5	309.2
62.5°	431.2	346.3	199.4	286.2
65°	374.6	237.2	155.6	238.2
67.5°	320.6	150.6	118.3	172.1
70°	285.2	111.4	84.5	134.5
72.5°	249.1	87.6	71.5	116.0
75°	195.0	62.4	72.0	90.3
77.5°	146.0	47.4	64.3	63.0
80°	111.4	37.5	52.8	49.9
82.5°	83.0	29.8	37.5	36.9
85°	41.3	17.3	19.2	15.4
87.5°	16.9	8.5	6.9	3.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)