

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-125D-940-1D-UNV-STD-W-12

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-125D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

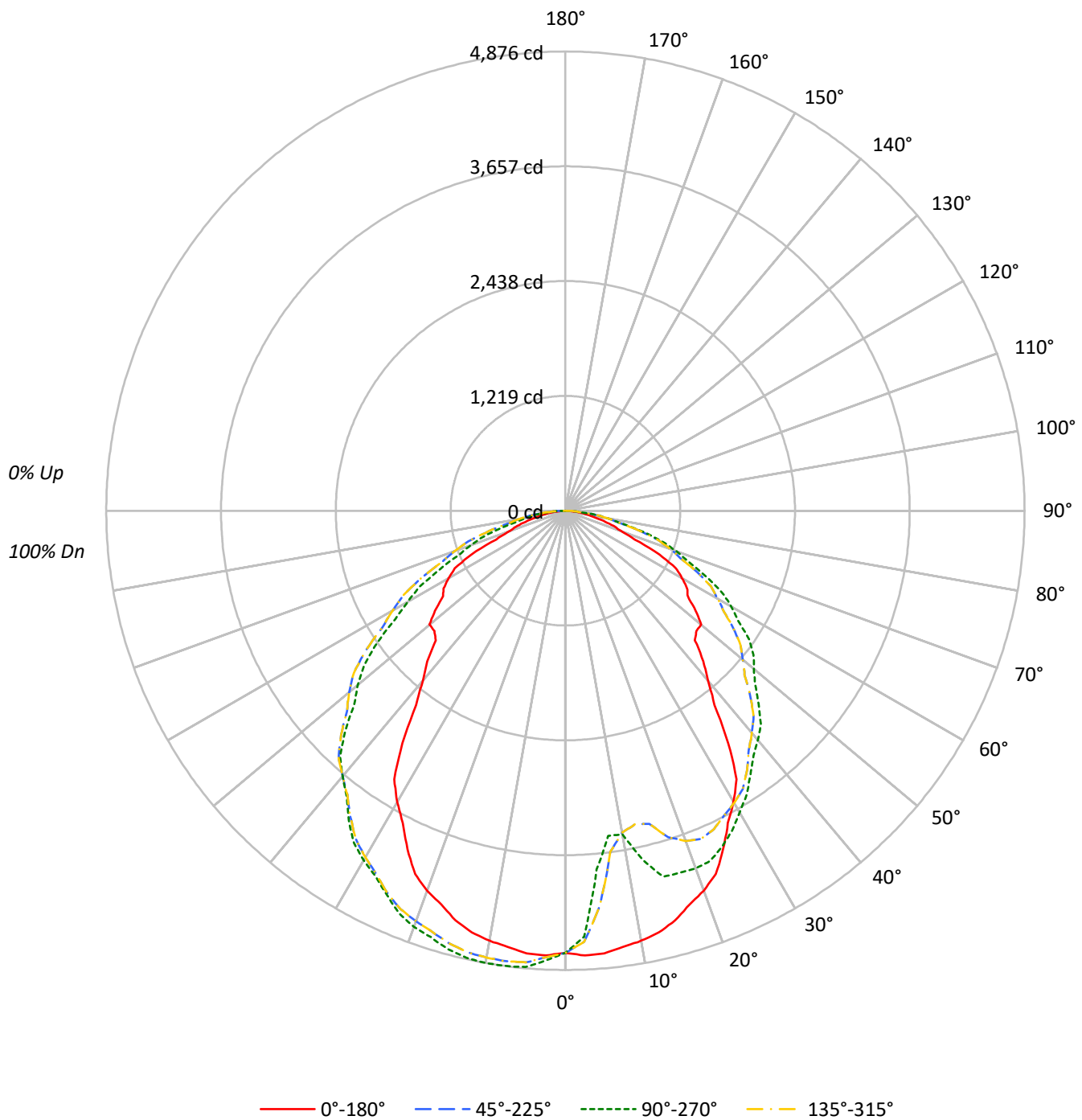
Lumens per Lamp: N/A
Luminaire Lumens: 12163.9 lumens
Efficiency: N/A
Efficacy: 86.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 140.8
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°	14436	14436	14436	14436
5°	14560	11804	14560	15012
10°	14478	10887	14478	15227
15°	14337	12810	14337	15341
20°	14054	13226	14054	15392
25°	13457	13351	13457	15250
30°	12679	13136	12679	15218
35°	11321	12855	11321	15055
40°	9449	12765	9449	14780
45°	8460	12612	8460	14370
50°	9009	12493	9009	13768
55°	8501	12763	8501	13072
60°	8796	12510	8796	11882
65°	8014	11957	8014	10696
70°	5590	11221	5590	9544
75°	4960	9921	4960	8284
80°	4089	7708	4089	7079
85°	2509	5328	2509	6267

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 14679 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	423.1	3.5
10°-20°	1202.5	9.9
20°-30°	1858.4	15.3
30°-40°	2220.3	18.3
40°-50°	2234.7	18.4
50°-60°	1940.2	16.0
60°-70°	1373.4	11.3
70°-80°	726.4	6.0
80°-90°	184.8	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°	3484.1	28.6
0°-40°	5704.4	46.9
0°-60°	9879.3	81.2
0°-90°	12163.9	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	12163.9	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4694	4694	4694	4694	4694	
5°	4716	3824	4716	4863	4716	447
15°	4503	4023	4503	4818	4503	1266
25°	3966	3935	3966	4494	3966	1819
35°	3015	3424	3015	4010	3015	1862
45°	1945	2900	1945	3304	1945	1566
55°	1585	2380	1585	2438	1585	1458
65°	1101	1643	1101	1470	1101	1048
75°	417	835	417	697	417	440
85°	71	151	71	178	71	102
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°	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0
2.5°	4726.0	4690.4	4676.2	4647.8	4594.5	4566.1	4587.4	4551.9	4566.1	4527.0	4566.1
5°	4716.2	4636.3	4569.6	4458.6	4298.7	4112.2	4067.8	3952.4	3881.3	3823.6	3881.3
7.5°	4671.8	4535.0	4331.6	3992.3	3719.7	3586.4	3553.6	3520.7	3511.8	3482.5	3511.8
10°	4636.3	4449.7	4072.3	3690.4	3499.4	3437.2	3450.5	3463.9	3490.5	3486.1	3490.5
12.5°	4586.5	4300.5	3802.3	3537.6	3410.6	3408.8	3507.4	3684.1	3806.7	3798.7	3806.7
15°	4503.0	4014.5	3548.2	3379.5	3339.5	3543.8	3903.5	3987.9	4019.0	4023.4	4019.0
17.5°	4383.1	3734.8	3385.7	3274.7	3410.6	3854.7	3963.9	4002.1	4028.7	4030.5	4028.7
20°	4294.3	3592.7	3304.0	3228.5	3588.2	3872.4	3939.0	3987.9	4032.3	4041.2	4032.3
22.5°	4173.5	3493.2	3218.7	3196.5	3687.7	3854.7	3914.2	3987.9	4025.2	4023.4	4025.2
25°	3965.7	3370.6	3113.0	3161.9	3699.2	3761.4	3876.9	3925.7	3930.2	3934.6	3930.2
27.5°	3737.4	3263.1	2989.6	3185.0	3627.3	3671.7	3796.0	3820.9	3837.8	3830.7	3837.8
30°	3570.4	3188.5	2904.3	3188.5	3570.4	3597.1	3721.4	3739.2	3717.0	3699.2	3717.0
32.5°	3382.2	3096.2	2822.6	3163.7	3485.2	3522.5	3622.0	3614.9	3592.7	3578.4	3592.7
35°	3015.3	2939.8	2673.4	3082.0	3339.5	3388.4	3446.1	3441.7	3437.2	3423.9	3437.2
37.5°	2602.3	2755.1	2526.0	2954.9	3199.2	3195.6	3281.8	3300.4	3296.0	3279.1	3296.0
40°	2353.7	2602.3	2433.6	2855.5	3099.7	3064.2	3175.2	3197.4	3193.0	3179.7	3193.0
42.5°	2168.9	2399.8	2327.0	2734.7	2978.9	2936.3	3072.2	3094.4	3082.8	3073.1	3082.8
45°	1945.1	1985.1	2162.7	2540.2	2775.5	2771.1	2917.6	2939.8	2913.2	2899.9	2913.2
47.5°	1886.5	1600.5	1983.3	2314.6	2573.9	2590.8	2748.0	2767.5	2743.6	2732.0	2743.6
50°	1882.9	1412.2	1851.8	2140.5	2442.5	2473.6	2637.9	2646.8	2615.7	2611.2	2615.7
52.5°	1744.4	1305.6	1699.1	1987.7	2328.8	2367.0	2517.1	2515.3	2512.6	2518.9	2512.6
55°	1585.4	1176.8	1434.4	1763.0	2153.8	2202.7	2335.9	2340.3	2371.4	2380.3	2371.4
57.5°	1533.0	1031.2	1189.3	1568.5	1978.0	2016.1	2141.4	2152.0	2173.4	2172.5	2173.4
60°	1430.0	928.1	1043.6	1447.7	1843.0	1891.8	2002.8	2020.6	2038.4	2033.9	2038.4
62.5°	1323.4	857.1	972.5	1348.2	1715.1	1767.5	1843.0	1874.9	1882.0	1874.0	1882.0
65°	1101.3	763.8	861.5	1190.1	1518.8	1576.5	1625.4	1647.6	1652.0	1643.1	1652.0
67.5°	795.8	677.7	774.5	1033.8	1293.2	1358.0	1386.4	1399.8	1395.3	1411.3	1395.3
70°	621.7	617.3	710.5	923.7	1154.6	1212.4	1230.1	1243.4	1239.0	1247.9	1239.0
72.5°	536.5	567.5	643.0	810.0	998.3	1056.0	1066.7	1069.4	1082.7	1073.8	1082.7
75°	417.4	484.1	532.9	639.5	781.6	821.6	826.0	830.4	821.6	834.9	821.6
77.5°	291.3	368.6	412.1	473.4	569.3	594.2	593.3	596.0	588.9	588.0	588.9
80°	230.9	279.8	319.7	359.7	430.8	448.5	444.1	439.6	439.6	435.2	439.6
82.5°	170.5	198.1	234.5	263.8	310.0	313.5	319.7	311.7	311.7	318.0	311.7
85°	71.1	93.3	119.9	133.2	151.0	155.4	146.5	159.9	151.0	151.0	151.0
87.5°	17.8	28.4	42.6	49.7	53.3	49.7	49.7	42.6	42.6	42.6	42.6
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°	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0
2.5°	4551.9	4587.4	4566.1	4594.5	4647.8	4676.2	4690.4	4726.0	4726.0	4747.3	4754.4
5°	3952.4	4067.8	4112.2	4298.7	4458.6	4569.6	4636.3	4716.2	4751.7	4800.6	4818.3
7.5°	3520.7	3553.6	3586.4	3719.7	3992.3	4331.6	4535.0	4671.8	4743.7	4807.7	4833.4
10°	3463.9	3450.5	3437.2	3499.4	3690.4	4072.3	4449.7	4636.3	4729.5	4800.6	4822.8
12.5°	3684.1	3507.4	3408.8	3410.6	3537.6	3802.3	4300.5	4586.5	4708.2	4775.7	4801.5
15°	3987.9	3903.5	3543.8	3339.5	3379.5	3548.2	4014.5	4503.0	4654.0	4716.2	4756.2
17.5°	4002.1	3963.9	3854.7	3410.6	3274.7	3385.7	3734.8	4383.1	4575.0	4648.7	4684.2
20°	3987.9	3939.0	3872.4	3588.2	3228.5	3304.0	3592.7	4294.3	4507.5	4591.8	4627.4
22.5°	3987.9	3914.2	3854.7	3687.7	3196.5	3218.7	3493.2	4173.5	4436.4	4524.3	4559.9
25°	3925.7	3876.9	3761.4	3699.2	3161.9	3113.0	3370.6	3965.7	4321.0	4396.4	4449.7
27.5°	3820.9	3796.0	3671.7	3627.3	3185.0	2989.6	3263.1	3737.4	4162.0	4269.4	4327.2
30°	3739.2	3721.4	3597.1	3570.4	3188.5	2904.3	3188.5	3570.4	4023.4	4170.0	4245.5
32.5°	3614.9	3622.0	3522.5	3485.2	3163.7	2822.6	3096.2	3382.2	3817.4	4066.9	4156.6
35°	3441.7	3446.1	3388.4	3339.5	3082.0	2673.4	2939.8	3015.3	3566.0	3921.3	3996.8
37.5°	3300.4	3281.8	3195.6	3199.2	2954.9	2526.0	2755.1	2602.3	3338.6	3767.6	3822.7
40°	3197.4	3175.2	3064.2	3099.7	2855.5	2433.6	2602.3	2353.7	3121.9	3650.4	3694.8
42.5°	3094.4	3072.2	2936.3	2978.9	2734.7	2327.0	2399.8	2168.9	2883.9	3526.0	3538.5
45°	2939.8	2917.6	2771.1	2775.5	2540.2	2162.7	1985.1	1945.1	2744.4	3326.2	3326.2
47.5°	2767.5	2748.0	2590.8	2573.9	2314.6	1983.3	1600.5	1886.5	2549.1	3111.3	3109.5
50°	2646.8	2637.9	2473.6	2442.5	2140.5	1851.8	1412.2	1882.9	2406.9	2926.5	2970.9
52.5°	2515.3	2517.1	2367.0	2328.8	1987.7	1699.1	1305.6	1744.4	2232.9	2688.5	2828.8
55°	2340.3	2335.9	2202.7	2153.8	1763.0	1434.4	1176.8	1585.4	1962.9	2358.1	2593.5
57.5°	2152.0	2141.4	2016.1	1978.0	1568.5	1189.3	1031.2	1533.0	1543.6	2056.1	2356.3
60°	2020.6	2002.8	1891.8	1843.0	1447.7	1043.6	928.1	1430.0	1181.3	1843.0	2171.6
62.5°	1874.9	1843.0	1767.5	1715.1	1348.2	972.5	857.1	1323.4	921.9	1601.4	1993.9
65°	1647.6	1625.4	1576.5	1518.8	1190.1	861.5	763.8	1101.3	719.4	1096.9	1731.9
67.5°	1399.8	1386.4	1358.0	1293.2	1033.8	774.5	677.7	795.8	547.1	696.3	1482.4
70°	1243.4	1230.1	1212.4	1154.6	923.7	710.5	617.3	621.7	390.8	515.1	1318.9
72.5°	1069.4	1066.7	1056.0	998.3	810.0	643.0	567.5	536.5	330.4	405.0	1152.0
75°	830.4	826.0	821.6	781.6	639.5	532.9	484.1	417.4	333.1	288.7	901.5
77.5°	596.0	593.3	594.2	569.3	473.4	412.1	368.6	291.3	297.5	219.4	675.0
80°	439.6	444.1	448.5	430.8	359.7	319.7	279.8	230.9	244.2	173.2	515.1
82.5°	311.7	319.7	313.5	310.0	263.8	234.5	198.1	170.5	173.2	137.7	383.7
85°	159.9	146.5	155.4	151.0	133.2	119.9	93.3	71.1	88.8	79.9	191.0
87.5°	42.6	49.7	49.7	53.3	49.7	42.6	28.4	17.8	32.0	39.1	78.2
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0	4694.0
2.5°	4743.7	4743.7	4775.7	4782.8	4789.9	4779.2	4789.9	4782.8	4775.7	4743.7	4743.7
5°	4813.9	4813.9	4858.3	4871.6	4871.6	4862.7	4871.6	4871.6	4858.3	4813.9	4813.9
7.5°	4820.1	4827.2	4871.6	4881.4	4889.4	4876.1	4889.4	4881.4	4871.6	4827.2	4820.1
10°	4809.4	4827.2	4871.6	4884.9	4889.4	4876.1	4889.4	4884.9	4871.6	4827.2	4809.4
12.5°	4795.2	4809.4	4853.9	4863.6	4871.6	4861.8	4871.6	4863.6	4853.9	4809.4	4795.2
15°	4747.3	4765.0	4813.9	4822.8	4831.7	4818.3	4831.7	4822.8	4813.9	4765.0	4747.3
17.5°	4680.7	4702.9	4747.3	4761.5	4765.9	4749.1	4765.9	4761.5	4747.3	4702.9	4680.7
20°	4627.4	4649.6	4694.0	4711.7	4716.2	4702.9	4716.2	4711.7	4694.0	4649.6	4627.4
22.5°	4559.9	4596.3	4637.1	4644.2	4638.0	4624.7	4638.0	4644.2	4637.1	4596.3	4559.9
25°	4463.1	4494.1	4507.5	4507.5	4507.5	4494.1	4507.5	4507.5	4507.5	4494.1	4463.1
27.5°	4339.6	4355.6	4363.6	4370.7	4379.6	4370.7	4379.6	4370.7	4363.6	4355.6	4339.6
30°	4254.3	4245.5	4267.7	4285.4	4294.3	4285.4	4294.3	4285.4	4267.7	4245.5	4254.3
32.5°	4137.1	4142.4	4175.3	4186.0	4187.7	4178.8	4187.7	4186.0	4175.3	4142.4	4137.1
35°	3965.7	3987.9	4010.1	4019.0	4023.4	4010.1	4023.4	4019.0	4010.1	3987.9	3965.7
37.5°	3784.5	3823.6	3839.6	3829.8	3830.7	3816.5	3830.7	3829.8	3839.6	3823.6	3784.5
40°	3663.7	3699.2	3708.1	3694.8	3699.2	3681.5	3699.2	3694.8	3708.1	3699.2	3663.7
42.5°	3550.0	3578.4	3569.6	3552.7	3550.0	3542.9	3550.0	3552.7	3569.6	3578.4	3550.0
45°	3361.7	3375.1	3335.1	3321.8	3312.9	3304.0	3312.9	3321.8	3335.1	3375.1	3361.7
47.5°	3155.7	3137.9	3099.7	3079.3	3054.4	3037.5	3054.4	3079.3	3099.7	3137.9	3155.7
50°	3024.2	2970.9	2939.8	2891.0	2873.2	2877.7	2873.2	2891.0	2939.8	2970.9	3024.2
52.5°	2864.4	2800.4	2751.6	2709.8	2695.6	2692.9	2695.6	2709.8	2751.6	2800.4	2864.4
55°	2633.4	2535.7	2455.8	2433.6	2429.1	2438.0	2429.1	2433.6	2455.8	2535.7	2633.4
57.5°	2350.1	2254.2	2188.5	2170.7	2155.6	2141.4	2155.6	2170.7	2188.5	2254.2	2350.1
60°	2158.3	2069.4	2007.3	1989.5	1949.5	1931.8	1949.5	1989.5	2007.3	2069.4	2158.3
62.5°	1987.7	1881.1	1833.2	1797.7	1768.3	1739.9	1768.3	1797.7	1833.2	1881.1	1987.7
65°	1740.8	1616.5	1567.6	1536.5	1483.2	1469.9	1483.2	1536.5	1567.6	1616.5	1740.8
67.5°	1470.8	1362.5	1301.2	1259.4	1225.7	1224.8	1225.7	1259.4	1301.2	1362.5	1470.8
70°	1296.7	1199.0	1141.3	1092.5	1065.8	1061.4	1065.8	1092.5	1141.3	1199.0	1296.7
72.5°	1126.2	1032.1	981.4	936.1	913.0	908.6	913.0	936.1	981.4	1032.1	1126.2
75°	883.7	794.9	754.9	723.9	706.1	697.2	706.1	723.9	754.9	794.9	883.7
77.5°	653.7	581.8	561.3	529.4	514.3	513.4	514.3	529.4	561.3	581.8	653.7
80°	515.1	457.4	426.3	408.6	404.1	399.7	404.1	408.6	426.3	457.4	515.1
82.5°	373.0	340.2	319.7	309.1	308.2	300.2	308.2	309.1	319.7	340.2	373.0
85°	199.8	191.0	186.5	182.1	177.6	177.6	177.6	182.1	186.5	191.0	199.8
87.5°	81.7	85.3	85.3	88.8	92.4	88.8	92.4	88.8	85.3	85.3	81.7
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-125D-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	4694.0	4694.0	4694.0	4694.0
2.5°	4754.4	4747.3	4726.0	4726.0
5°	4818.3	4800.6	4751.7	4716.2
7.5°	4833.4	4807.7	4743.7	4671.8
10°	4822.8	4800.6	4729.5	4636.3
12.5°	4801.5	4775.7	4708.2	4586.5
15°	4756.2	4716.2	4654.0	4503.0
17.5°	4684.2	4648.7	4575.0	4383.1
20°	4627.4	4591.8	4507.5	4294.3
22.5°	4559.9	4524.3	4436.4	4173.5
25°	4449.7	4396.4	4321.0	3965.7
27.5°	4327.2	4269.4	4162.0	3737.4
30°	4245.5	4170.0	4023.4	3570.4
32.5°	4156.6	4066.9	3817.4	3382.2
35°	3996.8	3921.3	3566.0	3015.3
37.5°	3822.7	3767.6	3338.6	2602.3
40°	3694.8	3650.4	3121.9	2353.7
42.5°	3538.5	3526.0	2883.9	2168.9
45°	3326.2	3326.2	2744.4	1945.1
47.5°	3109.5	3111.3	2549.1	1886.5
50°	2970.9	2926.5	2406.9	1882.9
52.5°	2828.8	2688.5	2232.9	1744.4
55°	2593.5	2358.1	1962.9	1585.4
57.5°	2356.3	2056.1	1543.6	1533.0
60°	2171.6	1843.0	1181.3	1430.0
62.5°	1993.9	1601.4	921.9	1323.4
65°	1731.9	1096.9	719.4	1101.3
67.5°	1482.4	696.3	547.1	795.8
70°	1318.9	515.1	390.8	621.7
72.5°	1152.0	405.0	330.4	536.5
75°	901.5	288.7	333.1	417.4
77.5°	675.0	219.4	297.5	291.3
80°	515.1	173.2	244.2	230.9
82.5°	383.7	137.7	173.2	170.5
85°	191.0	79.9	88.8	71.1
87.5°	78.2	39.1	32.0	17.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)