

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-100D-835-1D-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-100D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

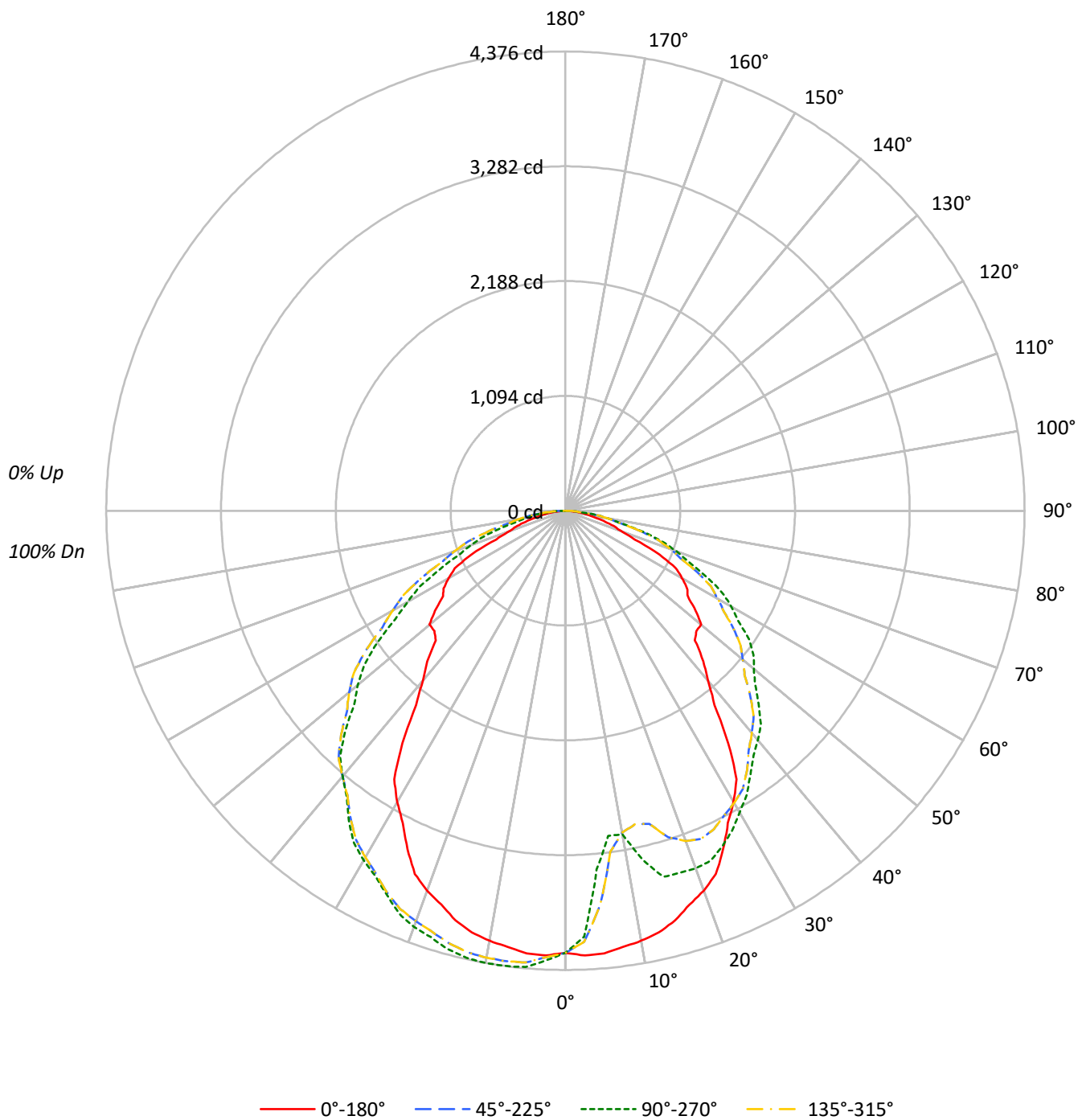
Lumens per Lamp: N/A
Luminaire Lumens: 10917.0 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 108.2
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	50	30	10
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111	106	106	106	102	102	102
1	109	105	100	97	106	102	98	95	98	95	92	94	92	89	91	88	87
2	99	91	85	79	97	90	83	78	86	81	76	83	78	75	80	76	73
3	91	81	73	66	88	79	72	66	76	70	64	73	68	63	71	66	62
4	83	71	63	56	81	70	62	56	68	61	55	65	59	54	63	58	54
5	77	64	55	49	75	63	54	48	61	53	48	59	52	47	57	51	47
6	71	58	49	42	69	57	48	42	55	47	42	53	47	41	52	46	41
7	66	52	44	38	64	51	43	37	50	43	37	48	42	37	47	41	37
8	61	48	39	33	60	47	39	33	46	38	33	44	38	33	43	37	33
9	57	44	36	30	56	43	35	30	42	35	30	41	34	30	40	34	30
10	54	40	33	27	52	40	32	27	39	32	27	38	32	27	37	31	27

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	12956	12956	12956	12956
5°	13067	10594	13067	13473
10°	12994	9770	12994	13666
15°	12867	11497	12867	13768
20°	12614	11870	12614	13814
25°	12078	11983	12078	13687
30°	11379	11790	11379	13658
35°	10160	11537	10160	13512
40°	8481	11457	8481	13265
45°	7593	11319	7593	12897
50°	8085	11212	8085	12357
55°	7629	11454	7629	11732
60°	7894	11228	7894	10664
65°	7193	10731	7193	9600
70°	5017	10071	5017	8566
75°	4451	8904	4451	7435
80°	3671	6918	3671	6353
85°	2251	4781	2251	5625

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 13174 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	379.8	3.5
10°-20°	1079.3	9.9
20°-30°	1667.9	15.3
30°-40°	1992.7	18.3
40°-50°	2005.6	18.4
50°-60°	1741.3	16.0
60°-70°	1232.6	11.3
70°-80°	652.0	6.0
80°-90°	165.9	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°	3126.9	28.6
0°-40°	5119.7	46.9
0°-60°	8866.6	81.2
0°-90°	10917.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	10917.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	4213	4213	4213	4213	4213	
5°	4233	3432	4233	4364	4233	401
15°	4041	3611	4041	4324	4041	1136
25°	3559	3531	3559	4034	3559	1632
35°	2706	3073	2706	3599	2706	1671
45°	1746	2603	1746	2965	1746	1406
55°	1423	2136	1423	2188	1423	1309
65°	988	1475	988	1319	988	941
75°	375	749	375	626	375	395
85°	64	136	64	159	64	91
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°	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8
2.5°	4241.5	4209.6	4196.9	4171.4	4123.5	4098.0	4117.2	4085.3	4098.0	4062.9	4098.0
5°	4232.7	4161.0	4101.2	4001.6	3858.1	3690.7	3650.8	3547.2	3483.4	3431.6	3483.4
7.5°	4192.9	4070.1	3887.6	3583.1	3338.4	3218.8	3189.3	3159.8	3151.8	3125.5	3151.8
10°	4161.0	3993.6	3654.8	3312.1	3140.7	3084.9	3096.8	3108.8	3132.7	3128.7	3132.7
12.5°	4116.4	3859.7	3412.5	3174.9	3061.0	3059.4	3147.8	3306.5	3416.5	3409.3	3416.5
15°	4041.4	3603.0	3184.5	3033.1	2997.2	3180.5	3503.4	3579.1	3607.0	3611.0	3607.0
17.5°	3933.8	3351.9	3038.6	2939.0	3061.0	3459.5	3557.6	3591.8	3615.8	3617.4	3615.8
20°	3854.1	3224.4	2965.3	2897.5	3220.4	3475.5	3535.2	3579.1	3618.9	3626.9	3618.9
22.5°	3745.7	3135.1	2888.8	2868.9	3309.7	3459.5	3512.9	3579.1	3612.6	3611.0	3612.6
25°	3559.2	3025.1	2793.9	2837.8	3320.0	3375.8	3479.5	3523.3	3527.3	3531.3	3527.3
27.5°	3354.3	2928.6	2683.1	2858.5	3255.5	3295.3	3406.9	3429.2	3444.4	3438.0	3444.4
30°	3204.4	2861.7	2606.6	2861.7	3204.4	3228.4	3340.0	3355.9	3336.0	3320.0	3336.0
32.5°	3035.5	2778.8	2533.3	2839.4	3127.9	3161.4	3250.7	3244.3	3224.4	3211.6	3224.4
35°	2706.2	2638.5	2399.3	2766.0	2997.2	3041.0	3092.8	3088.9	3084.9	3072.9	3084.9
37.5°	2335.6	2472.7	2267.0	2652.0	2871.2	2868.1	2945.4	2962.1	2958.1	2943.0	2958.1
40°	2112.4	2335.6	2184.1	2562.8	2782.0	2750.1	2849.7	2869.6	2865.7	2853.7	2865.7
42.5°	1946.6	2153.8	2088.5	2454.3	2673.6	2635.3	2757.3	2777.2	2766.8	2758.1	2766.8
45°	1745.7	1781.6	1941.0	2279.8	2491.0	2487.0	2618.6	2638.5	2614.6	2602.6	2614.6
47.5°	1693.1	1436.4	1780.0	2077.3	2310.1	2325.2	2466.3	2483.8	2462.3	2452.0	2462.3
50°	1689.9	1267.4	1662.0	1921.1	2192.1	2220.0	2367.5	2375.4	2347.5	2343.5	2347.5
52.5°	1565.6	1171.8	1524.9	1784.0	2090.1	2124.3	2259.1	2257.5	2255.1	2260.6	2255.1
55°	1422.9	1056.2	1287.4	1582.3	1933.0	1976.9	2096.4	2100.4	2128.3	2136.3	2128.3
57.5°	1375.8	925.5	1067.4	1407.7	1775.2	1809.5	1921.9	1931.4	1950.6	1949.8	1950.6
60°	1283.4	833.0	936.6	1299.3	1654.0	1697.9	1797.5	1813.5	1829.4	1825.4	1829.4
62.5°	1187.7	769.2	872.9	1210.0	1539.2	1586.3	1654.0	1682.7	1689.1	1681.9	1689.1
65°	988.4	685.5	773.2	1068.1	1363.1	1414.9	1458.7	1478.7	1482.7	1474.7	1482.7
67.5°	714.2	608.2	695.1	927.9	1160.6	1218.8	1244.3	1256.3	1252.3	1266.6	1252.3
70°	558.0	554.0	637.7	829.0	1036.3	1088.1	1104.0	1116.0	1112.0	1120.0	1112.0
72.5°	481.5	509.4	577.1	727.0	896.0	947.8	957.3	959.7	971.7	963.7	971.7
75°	374.6	434.4	478.3	573.9	701.5	737.3	741.3	745.3	737.3	749.3	737.3
77.5°	261.5	330.8	369.9	424.9	511.0	533.3	532.5	534.9	528.5	527.7	528.5
80°	207.3	251.1	287.0	322.8	386.6	402.5	398.6	394.6	394.6	390.6	394.6
82.5°	153.0	177.8	210.4	236.7	278.2	281.4	287.0	279.8	279.8	285.4	279.8
85°	63.8	83.7	107.6	119.6	135.5	139.5	131.5	143.5	135.5	135.5	135.5
87.5°	15.9	25.5	38.3	44.6	47.8	44.6	44.6	38.3	38.3	38.3	38.3
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°	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8
2.5°	4085.3	4117.2	4098.0	4123.5	4171.4	4196.9	4209.6	4241.5	4241.5	4260.6	4267.0
5°	3547.2	3650.8	3690.7	3858.1	4001.6	4101.2	4161.0	4232.7	4264.6	4308.5	4324.4
7.5°	3159.8	3189.3	3218.8	3338.4	3583.1	3887.6	4070.1	4192.9	4257.4	4314.8	4338.0
10°	3108.8	3096.8	3084.9	3140.7	3312.1	3654.8	3993.6	4161.0	4244.7	4308.5	4328.4
12.5°	3306.5	3147.8	3059.4	3061.0	3174.9	3412.5	3859.7	4116.4	4225.6	4286.1	4309.3
15°	3579.1	3503.4	3180.5	2997.2	3033.1	3184.5	3603.0	4041.4	4176.9	4232.7	4268.6
17.5°	3591.8	3557.6	3459.5	3061.0	2939.0	3038.6	3351.9	3933.8	4106.0	4172.2	4204.0
20°	3579.1	3535.2	3475.5	3220.4	2897.5	2965.3	3224.4	3854.1	4045.4	4121.1	4153.0
22.5°	3579.1	3512.9	3459.5	3309.7	2868.9	2888.8	3135.1	3745.7	3981.6	4060.6	4092.4
25°	3523.3	3479.5	3375.8	3320.0	2837.8	2793.9	3025.1	3559.2	3878.0	3945.8	3993.6
27.5°	3429.2	3406.9	3295.3	3255.5	2858.5	2683.1	2928.6	3354.3	3735.3	3831.8	3883.6
30°	3355.9	3340.0	3228.4	3204.4	2861.7	2606.6	2861.7	3204.4	3611.0	3742.5	3810.3
32.5°	3244.3	3250.7	3161.4	3127.9	2839.4	2533.3	2778.8	3035.5	3426.0	3650.0	3730.5
35°	3088.9	3092.8	3041.0	2997.2	2766.0	2399.3	2638.5	2706.2	3200.5	3519.3	3587.1
37.5°	2962.1	2945.4	2868.1	2871.2	2652.0	2267.0	2472.7	2335.6	2996.4	3381.4	3430.8
40°	2869.6	2849.7	2750.1	2782.0	2562.8	2184.1	2335.6	2112.4	2801.9	3276.2	3316.0
42.5°	2777.2	2757.3	2635.3	2673.6	2454.3	2088.5	2153.8	1946.6	2588.3	3164.6	3175.7
45°	2638.5	2618.6	2487.0	2491.0	2279.8	1941.0	1781.6	1745.7	2463.1	2985.2	2985.2
47.5°	2483.8	2466.3	2325.2	2310.1	2077.3	1780.0	1436.4	1693.1	2287.7	2792.3	2790.7
50°	2375.4	2367.5	2220.0	2192.1	1921.1	1662.0	1267.4	1689.9	2160.2	2626.5	2666.4
52.5°	2257.5	2259.1	2124.3	2090.1	1784.0	1524.9	1171.8	1565.6	2004.0	2412.9	2538.8
55°	2100.4	2096.4	1976.9	1933.0	1582.3	1287.4	1056.2	1422.9	1761.6	2116.4	2327.6
57.5°	1931.4	1921.9	1809.5	1775.2	1407.7	1067.4	925.5	1375.8	1385.4	1845.3	2114.8
60°	1813.5	1797.5	1697.9	1654.0	1299.3	936.6	833.0	1283.4	1060.2	1654.0	1949.0
62.5°	1682.7	1654.0	1586.3	1539.2	1210.0	872.9	769.2	1187.7	827.4	1437.2	1789.5
65°	1478.7	1458.7	1414.9	1363.1	1068.1	773.2	685.5	988.4	645.7	984.4	1554.4
67.5°	1256.3	1244.3	1218.8	1160.6	927.9	695.1	608.2	714.2	491.0	624.9	1330.4
70°	1116.0	1104.0	1088.1	1036.3	829.0	637.7	554.0	558.0	350.7	462.3	1183.7
72.5°	959.7	957.3	947.8	896.0	727.0	577.1	509.4	481.5	296.5	363.5	1033.9
75°	745.3	741.3	737.3	701.5	573.9	478.3	434.4	374.6	298.9	259.1	809.1
77.5°	534.9	532.5	533.3	511.0	424.9	369.9	330.8	261.5	267.0	196.9	605.8
80°	394.6	398.6	402.5	386.6	322.8	287.0	251.1	207.3	219.2	155.4	462.3
82.5°	279.8	287.0	281.4	278.2	236.7	210.4	177.8	153.0	155.4	123.6	344.4
85°	143.5	131.5	139.5	135.5	119.6	107.6	83.7	63.8	79.7	71.7	171.4
87.5°	38.3	44.6	44.6	47.8	44.6	38.3	25.5	15.9	28.7	35.1	70.1
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°	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8	4212.8
2.5°	4257.4	4257.4	4286.1	4292.5	4298.9	4289.3	4298.9	4292.5	4286.1	4257.4	4257.4
5°	4320.4	4320.4	4360.3	4372.2	4372.2	4364.3	4372.2	4372.2	4360.3	4320.4	4320.4
7.5°	4326.0	4332.4	4372.2	4381.0	4388.2	4376.2	4388.2	4381.0	4372.2	4332.4	4326.0
10°	4316.4	4332.4	4372.2	4384.2	4388.2	4376.2	4388.2	4384.2	4372.2	4332.4	4316.4
12.5°	4303.7	4316.4	4356.3	4365.1	4372.2	4363.5	4372.2	4365.1	4356.3	4316.4	4303.7
15°	4260.6	4276.6	4320.4	4328.4	4336.4	4324.4	4336.4	4328.4	4320.4	4276.6	4260.6
17.5°	4200.8	4220.8	4260.6	4273.4	4277.4	4262.2	4277.4	4273.4	4260.6	4220.8	4200.8
20°	4153.0	4172.9	4212.8	4228.7	4232.7	4220.8	4232.7	4228.7	4212.8	4172.9	4153.0
22.5°	4092.4	4125.1	4161.8	4168.2	4162.6	4150.6	4162.6	4168.2	4161.8	4125.1	4092.4
25°	4005.6	4033.5	4045.4	4045.4	4045.4	4033.5	4045.4	4045.4	4045.4	4033.5	4005.6
27.5°	3894.8	3909.1	3916.3	3922.7	3930.6	3922.7	3930.6	3922.7	3916.3	3909.1	3894.8
30°	3818.2	3810.3	3830.2	3846.1	3854.1	3846.1	3854.1	3846.1	3830.2	3810.3	3818.2
32.5°	3713.0	3717.8	3747.3	3756.9	3758.4	3750.5	3758.4	3756.9	3747.3	3717.8	3713.0
35°	3559.2	3579.1	3599.0	3607.0	3611.0	3599.0	3611.0	3607.0	3599.0	3579.1	3559.2
37.5°	3396.5	3431.6	3446.0	3437.2	3438.0	3425.2	3438.0	3437.2	3446.0	3431.6	3396.5
40°	3288.1	3320.0	3328.0	3316.0	3320.0	3304.1	3320.0	3316.0	3328.0	3320.0	3288.1
42.5°	3186.1	3211.6	3203.6	3188.5	3186.1	3179.7	3186.1	3188.5	3203.6	3211.6	3186.1
45°	3017.1	3029.1	2993.2	2981.2	2973.3	2965.3	2973.3	2981.2	2993.2	3029.1	3017.1
47.5°	2832.2	2816.2	2782.0	2763.6	2741.3	2726.2	2741.3	2763.6	2782.0	2816.2	2832.2
50°	2714.2	2666.4	2638.5	2594.6	2578.7	2582.7	2578.7	2594.6	2638.5	2666.4	2714.2
52.5°	2570.7	2513.3	2469.5	2432.0	2419.3	2416.9	2419.3	2432.0	2469.5	2513.3	2570.7
55°	2363.5	2275.8	2204.1	2184.1	2180.1	2188.1	2180.1	2184.1	2204.1	2275.8	2363.5
57.5°	2109.2	2023.1	1964.1	1948.2	1934.6	1921.9	1934.6	1948.2	1964.1	2023.1	2109.2
60°	1937.0	1857.3	1801.5	1785.6	1749.7	1733.7	1749.7	1785.6	1801.5	1857.3	1937.0
62.5°	1784.0	1688.3	1645.3	1613.4	1587.1	1561.6	1587.1	1613.4	1645.3	1688.3	1784.0
65°	1562.4	1450.8	1406.9	1379.0	1331.2	1319.2	1331.2	1379.0	1406.9	1450.8	1562.4
67.5°	1320.0	1222.8	1167.8	1130.3	1100.0	1099.2	1100.0	1130.3	1167.8	1222.8	1320.0
70°	1163.8	1076.1	1024.3	980.5	956.5	952.6	956.5	980.5	1024.3	1076.1	1163.8
72.5°	1010.8	926.3	880.8	840.2	819.4	815.5	819.4	840.2	880.8	926.3	1010.8
75°	793.1	713.4	677.6	649.7	633.7	625.7	633.7	649.7	677.6	713.4	793.1
77.5°	586.7	522.1	503.8	475.1	461.5	460.7	461.5	475.1	503.8	522.1	586.7
80°	462.3	410.5	382.6	366.7	362.7	358.7	362.7	366.7	382.6	410.5	462.3
82.5°	334.8	305.3	287.0	277.4	276.6	269.4	276.6	277.4	287.0	305.3	334.8
85°	179.4	171.4	167.4	163.4	159.4	159.4	159.4	163.4	167.4	171.4	179.4
87.5°	73.3	76.5	76.5	79.7	82.9	79.7	82.9	79.7	76.5	76.5	73.3
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-100D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	4212.8	4212.8	4212.8	4212.8
2.5°	4267.0	4260.6	4241.5	4241.5
5°	4324.4	4308.5	4264.6	4232.7
7.5°	4338.0	4314.8	4257.4	4192.9
10°	4328.4	4308.5	4244.7	4161.0
12.5°	4309.3	4286.1	4225.6	4116.4
15°	4268.6	4232.7	4176.9	4041.4
17.5°	4204.0	4172.2	4106.0	3933.8
20°	4153.0	4121.1	4045.4	3854.1
22.5°	4092.4	4060.6	3981.6	3745.7
25°	3993.6	3945.8	3878.0	3559.2
27.5°	3883.6	3831.8	3735.3	3354.3
30°	3810.3	3742.5	3611.0	3204.4
32.5°	3730.5	3650.0	3426.0	3035.5
35°	3587.1	3519.3	3200.5	2706.2
37.5°	3430.8	3381.4	2996.4	2335.6
40°	3316.0	3276.2	2801.9	2112.4
42.5°	3175.7	3164.6	2588.3	1946.6
45°	2985.2	2985.2	2463.1	1745.7
47.5°	2790.7	2792.3	2287.7	1693.1
50°	2666.4	2626.5	2160.2	1689.9
52.5°	2538.8	2412.9	2004.0	1565.6
55°	2327.6	2116.4	1761.6	1422.9
57.5°	2114.8	1845.3	1385.4	1375.8
60°	1949.0	1654.0	1060.2	1283.4
62.5°	1789.5	1437.2	827.4	1187.7
65°	1554.4	984.4	645.7	988.4
67.5°	1330.4	624.9	491.0	714.2
70°	1183.7	462.3	350.7	558.0
72.5°	1033.9	363.5	296.5	481.5
75°	809.1	259.1	298.9	374.6
77.5°	605.8	196.9	267.0	261.5
80°	462.3	155.4	219.2	207.3
82.5°	344.4	123.6	155.4	153.0
85°	171.4	71.7	79.7	63.8
87.5°	70.1	35.1	28.7	15.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)