

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-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-100D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

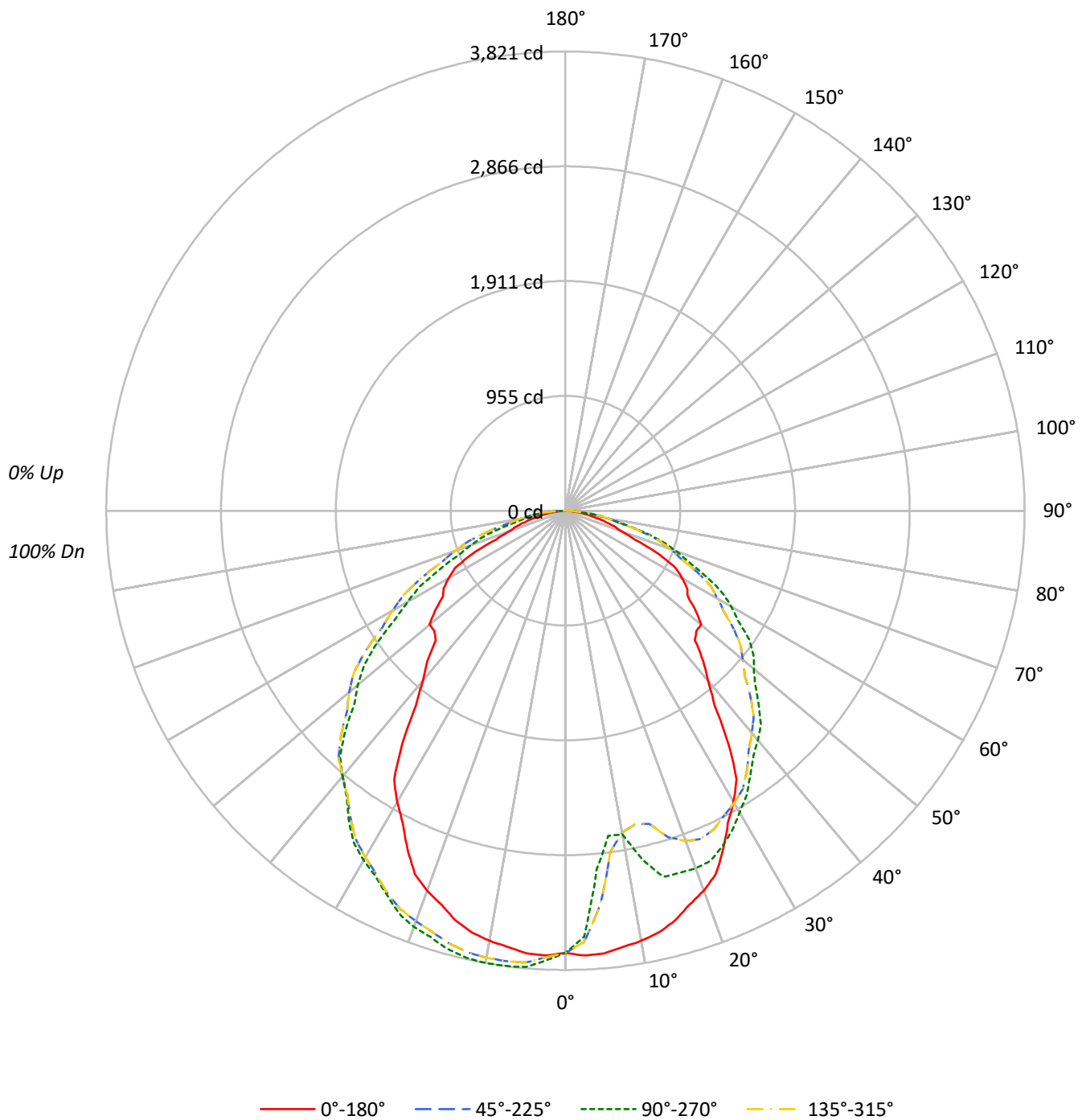
Lumens per Lamp: N/A
Luminaire Lumens: 9532.5 lumens
Efficiency: N/A
Efficacy: 88.1 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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



TEST NUMBER:

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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°	11313	11313	11313	11313
5°	11410	9250	11410	11765
10°	11346	8531	11346	11933
15°	11236	10039	11236	12022
20°	11014	10365	11014	12062
25°	10546	10463	10546	11951
30°	9937	10295	9937	11926
35°	8872	10074	8872	11798
40°	7405	10004	7405	11583
45°	6630	9884	6630	11261
50°	7060	9790	7060	10789
55°	6661	10002	6661	10244
60°	6893	9804	6893	9312
65°	6281	9371	6281	8382
70°	4381	8793	4381	7479
75°	3887	7775	3887	6493
80°	3206	6041	3206	5547
85°	1965	4174	1965	4912

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 11503 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	331.6	3.5
10°-20°	942.4	9.9
20°-30°	1456.4	15.3
30°-40°	1740.0	18.3
40°-50°	1751.3	18.4
50°-60°	1520.4	16.0
60°-70°	1076.3	11.3
70°-80°	569.3	6.0
80°-90°	144.8	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°	2730.4	28.6
0°-40°	4470.4	46.9
0°-60°	7742.1	81.2
0°-90°	9532.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9532.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3678	3678	3678	3678	3678	
5°	3696	2996	3696	3811	3696	350
15°	3529	3153	3529	3776	3529	992
25°	3108	3083	3108	3522	3108	1425
35°	2363	2683	2363	3143	2363	1459
45°	1524	2272	1524	2589	1524	1228
55°	1242	1865	1242	1911	1242	1143
65°	863	1288	863	1152	863	821
75°	327	654	327	546	327	345
85°	56	118	56	139	56	80
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°	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5
2.5°	3703.6	3675.8	3664.6	3642.3	3600.6	3578.3	3595.0	3567.2	3578.3	3547.7	3578.3
5°	3695.9	3633.3	3581.1	3494.1	3368.8	3222.6	3187.8	3097.3	3041.7	2996.4	3041.7
7.5°	3661.1	3553.9	3394.6	3128.7	2915.0	2810.6	2784.8	2759.1	2752.1	2729.1	2752.1
10°	3633.3	3487.1	3191.3	2892.0	2742.4	2693.6	2704.1	2714.5	2735.4	2731.9	2735.4
12.5°	3594.3	3370.2	2979.7	2772.3	2672.8	2671.4	2748.6	2887.1	2983.2	2976.9	2983.2
15°	3528.9	3146.1	2780.7	2648.4	2617.1	2777.2	3059.1	3125.2	3149.6	3153.0	3149.6
17.5°	3434.9	2926.8	2653.3	2566.3	2672.8	3020.8	3106.4	3136.3	3157.2	3158.6	3157.2
20°	3365.3	2815.5	2589.2	2530.1	2812.0	3034.7	3086.9	3125.2	3160.0	3167.0	3160.0
22.5°	3270.7	2737.5	2522.4	2505.0	2889.9	3020.8	3067.4	3125.2	3154.4	3153.0	3154.4
25°	3107.8	2641.4	2439.6	2477.9	2899.0	2947.7	3038.2	3076.5	3079.9	3083.4	3079.9
27.5°	2928.9	2557.2	2342.8	2496.0	2842.6	2877.4	2974.8	2994.3	3007.6	3002.0	3007.6
30°	2798.1	2498.8	2276.0	2498.8	2798.1	2818.9	2916.4	2930.3	2912.9	2899.0	2912.9
32.5°	2650.5	2426.4	2212.0	2479.3	2731.2	2760.5	2838.4	2832.9	2815.5	2804.3	2815.5
35°	2363.0	2303.9	2095.1	2415.2	2617.1	2655.4	2700.6	2697.1	2693.6	2683.2	2693.6
37.5°	2039.4	2159.1	1979.5	2315.7	2507.1	2504.3	2571.8	2586.5	2583.0	2569.8	2583.0
40°	1844.5	2039.4	1907.1	2237.7	2429.2	2401.3	2488.3	2505.7	2502.2	2491.8	2502.2
42.5°	1699.7	1880.7	1823.6	2143.1	2334.5	2301.1	2407.6	2425.0	2415.9	2408.3	2415.9
45°	1524.3	1555.6	1694.8	1990.7	2175.1	2171.6	2286.5	2303.9	2283.0	2272.5	2283.0
47.5°	1478.4	1254.3	1554.2	1813.9	2017.1	2030.3	2153.5	2168.8	2150.0	2141.0	2150.0
50°	1475.6	1106.7	1451.2	1677.4	1914.1	1938.5	2067.2	2074.2	2049.8	2046.3	2049.8
52.5°	1367.0	1023.2	1331.5	1557.7	1825.0	1854.9	1972.6	1971.2	1969.1	1974.0	1969.1
55°	1242.4	922.2	1124.1	1381.6	1687.9	1726.2	1830.6	1834.0	1858.4	1865.4	1858.4
57.5°	1201.4	808.1	932.0	1229.2	1550.1	1580.0	1678.1	1686.5	1703.2	1702.5	1703.2
60°	1120.6	727.4	817.8	1134.5	1444.3	1482.6	1569.6	1583.5	1597.4	1593.9	1597.4
62.5°	1037.1	671.7	762.2	1056.6	1344.0	1385.1	1444.3	1469.3	1474.9	1468.6	1474.9
65°	863.1	598.6	675.2	932.7	1190.2	1235.5	1273.7	1291.1	1294.6	1287.7	1294.6
67.5°	623.6	531.1	606.9	810.2	1013.4	1064.2	1086.5	1096.9	1093.5	1106.0	1093.5
70°	487.2	483.7	556.8	723.9	904.8	950.1	964.0	974.4	971.0	977.9	971.0
72.5°	420.4	444.8	503.9	634.8	782.3	827.6	835.9	838.0	848.5	841.5	848.5
75°	327.1	379.3	417.6	501.1	612.5	643.8	647.3	650.8	643.8	654.3	643.8
77.5°	228.3	288.9	323.0	371.0	446.2	465.6	465.0	467.0	461.5	460.8	461.5
80°	181.0	219.3	250.6	281.9	337.6	351.5	348.0	344.5	344.5	341.1	344.5
82.5°	133.6	155.2	183.8	206.7	242.9	245.7	250.6	244.3	244.3	249.2	244.3
85°	55.7	73.1	94.0	104.4	118.3	121.8	114.8	125.3	118.3	118.3	118.3
87.5°	13.9	22.3	33.4	39.0	41.8	39.0	39.0	33.4	33.4	33.4	33.4
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°	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5
2.5°	3567.2	3595.0	3578.3	3600.6	3642.3	3664.6	3675.8	3703.6	3703.6	3720.3	3725.9
5°	3097.3	3187.8	3222.6	3368.8	3494.1	3581.1	3633.3	3695.9	3723.8	3762.1	3776.0
7.5°	2759.1	2784.8	2810.6	2915.0	3128.7	3394.6	3553.9	3661.1	3717.5	3767.6	3787.8
10°	2714.5	2704.1	2693.6	2742.4	2892.0	3191.3	3487.1	3633.3	3706.4	3762.1	3779.5
12.5°	2887.1	2748.6	2671.4	2672.8	2772.3	2979.7	3370.2	3594.3	3689.7	3742.6	3762.8
15°	3125.2	3059.1	2777.2	2617.1	2648.4	2780.7	3146.1	3528.9	3647.2	3695.9	3727.3
17.5°	3136.3	3106.4	3020.8	2672.8	2566.3	2653.3	2926.8	3434.9	3585.3	3643.0	3670.9
20°	3125.2	3086.9	3034.7	2812.0	2530.1	2589.2	2815.5	3365.3	3532.4	3598.5	3626.3
22.5°	3125.2	3067.4	3020.8	2889.9	2505.0	2522.4	2737.5	3270.7	3476.7	3545.6	3573.4
25°	3076.5	3038.2	2947.7	2899.0	2477.9	2439.6	2641.4	3107.8	3386.2	3445.4	3487.1
27.5°	2994.3	2974.8	2877.4	2842.6	2496.0	2342.8	2557.2	2928.9	3261.6	3345.8	3391.1
30°	2930.3	2916.4	2818.9	2798.1	2498.8	2276.0	2498.8	2798.1	3153.0	3267.9	3327.0
32.5°	2832.9	2838.4	2760.5	2731.2	2479.3	2212.0	2426.4	2650.5	2991.6	3187.1	3257.4
35°	2697.1	2700.6	2655.4	2617.1	2415.2	2095.1	2303.9	2363.0	2794.6	3073.0	3132.2
37.5°	2586.5	2571.8	2504.3	2507.1	2315.7	1979.5	2159.1	2039.4	2616.4	2952.6	2995.7
40°	2505.7	2488.3	2401.3	2429.2	2237.7	1907.1	2039.4	1844.5	2446.6	2860.7	2895.5
42.5°	2425.0	2407.6	2301.1	2334.5	2143.1	1823.6	1880.7	1699.7	2260.0	2763.3	2773.0
45°	2303.9	2286.5	2171.6	2175.1	1990.7	1694.8	1555.6	1524.3	2150.7	2606.6	2606.6
47.5°	2168.8	2153.5	2030.3	2017.1	1813.9	1554.2	1254.3	1478.4	1997.6	2438.2	2436.8
50°	2074.2	2067.2	1938.5	1914.1	1677.4	1451.2	1106.7	1475.6	1886.3	2293.4	2328.2
52.5°	1971.2	1972.6	1854.9	1825.0	1557.7	1331.5	1023.2	1367.0	1749.8	2106.9	2216.9
55°	1834.0	1830.6	1726.2	1687.9	1381.6	1124.1	922.2	1242.4	1538.2	1848.0	2032.4
57.5°	1686.5	1678.1	1580.0	1550.1	1229.2	932.0	808.1	1201.4	1209.7	1611.3	1846.6
60°	1583.5	1569.6	1482.6	1444.3	1134.5	817.8	727.4	1120.6	925.7	1444.3	1701.8
62.5°	1469.3	1444.3	1385.1	1344.0	1056.6	762.2	671.7	1037.1	722.5	1254.9	1562.6
65°	1291.1	1273.7	1235.5	1190.2	932.7	675.2	598.6	863.1	563.8	859.6	1357.3
67.5°	1096.9	1086.5	1064.2	1013.4	810.2	606.9	531.1	623.6	428.8	545.7	1161.7
70°	974.4	964.0	950.1	904.8	723.9	556.8	483.7	487.2	306.3	403.7	1033.6
72.5°	838.0	835.9	827.6	782.3	634.8	503.9	444.8	420.4	258.9	317.4	902.8
75°	650.8	647.3	643.8	612.5	501.1	417.6	379.3	327.1	261.0	226.2	706.5
77.5°	467.0	465.0	465.6	446.2	371.0	323.0	288.9	228.3	233.2	171.9	529.0
80°	344.5	348.0	351.5	337.6	281.9	250.6	219.3	181.0	191.4	135.7	403.7
82.5°	244.3	250.6	245.7	242.9	206.7	183.8	155.2	133.6	135.7	107.9	300.7
85°	125.3	114.8	121.8	118.3	104.4	94.0	73.1	55.7	69.6	62.6	149.6
87.5°	33.4	39.0	39.0	41.8	39.0	33.4	22.3	13.9	25.1	30.6	61.3
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5	3678.5
2.5°	3717.5	3717.5	3742.6	3748.1	3753.7	3745.4	3753.7	3748.1	3742.6	3717.5	3717.5
5°	3772.5	3772.5	3807.3	3817.7	3817.7	3810.8	3817.7	3817.7	3807.3	3772.5	3772.5
7.5°	3777.4	3782.9	3817.7	3825.4	3831.7	3821.2	3831.7	3825.4	3817.7	3782.9	3777.4
10°	3769.0	3782.9	3817.7	3828.2	3831.7	3821.2	3831.7	3828.2	3817.7	3782.9	3769.0
12.5°	3757.9	3769.0	3803.8	3811.5	3817.7	3810.1	3817.7	3811.5	3803.8	3769.0	3757.9
15°	3720.3	3734.2	3772.5	3779.5	3786.4	3776.0	3786.4	3779.5	3772.5	3734.2	3720.3
17.5°	3668.1	3685.5	3720.3	3731.4	3734.9	3721.7	3734.9	3731.4	3720.3	3685.5	3668.1
20°	3626.3	3643.7	3678.5	3692.5	3695.9	3685.5	3695.9	3692.5	3678.5	3643.7	3626.3
22.5°	3573.4	3602.0	3634.0	3639.6	3634.7	3624.2	3634.7	3639.6	3634.0	3602.0	3573.4
25°	3497.6	3521.9	3532.4	3532.4	3532.4	3521.9	3532.4	3532.4	3532.4	3521.9	3497.6
27.5°	3400.8	3413.3	3419.6	3425.2	3432.1	3425.2	3432.1	3425.2	3419.6	3413.3	3400.8
30°	3334.0	3327.0	3344.4	3358.4	3365.3	3358.4	3365.3	3358.4	3344.4	3327.0	3334.0
32.5°	3242.1	3246.3	3272.1	3280.4	3281.8	3274.8	3281.8	3280.4	3272.1	3246.3	3242.1
35°	3107.8	3125.2	3142.6	3149.6	3153.0	3142.6	3153.0	3149.6	3142.6	3125.2	3107.8
37.5°	2965.8	2996.4	3009.0	3001.3	3002.0	2990.9	3002.0	3001.3	3009.0	2996.4	2965.8
40°	2871.1	2899.0	2905.9	2895.5	2899.0	2885.1	2899.0	2895.5	2905.9	2899.0	2871.1
42.5°	2782.0	2804.3	2797.4	2784.1	2782.0	2776.5	2782.0	2784.1	2797.4	2804.3	2782.0
45°	2634.5	2644.9	2613.6	2603.2	2596.2	2589.2	2596.2	2603.2	2613.6	2644.9	2634.5
47.5°	2473.0	2459.1	2429.2	2413.1	2393.7	2380.4	2393.7	2413.1	2429.2	2459.1	2473.0
50°	2370.0	2328.2	2303.9	2265.6	2251.7	2255.1	2251.7	2265.6	2303.9	2328.2	2370.0
52.5°	2244.7	2194.6	2156.3	2123.6	2112.5	2110.4	2112.5	2123.6	2156.3	2194.6	2244.7
55°	2063.7	1987.2	1924.5	1907.1	1903.7	1910.6	1903.7	1907.1	1924.5	1987.2	2063.7
57.5°	1841.7	1766.5	1715.0	1701.1	1689.3	1678.1	1689.3	1701.1	1715.0	1766.5	1841.7
60°	1691.4	1621.8	1573.0	1559.1	1527.8	1513.9	1527.8	1559.1	1573.0	1621.8	1691.4
62.5°	1557.7	1474.2	1436.6	1408.8	1385.8	1363.5	1385.8	1408.8	1436.6	1474.2	1557.7
65°	1364.2	1266.8	1228.5	1204.1	1162.4	1151.9	1162.4	1204.1	1228.5	1266.8	1364.2
67.5°	1152.6	1067.7	1019.7	987.0	960.5	959.8	960.5	987.0	1019.7	1067.7	1152.6
70°	1016.2	939.6	894.4	856.1	835.2	831.8	835.2	856.1	894.4	939.6	1016.2
72.5°	882.6	808.8	769.1	733.6	715.5	712.0	715.5	733.6	769.1	808.8	882.6
75°	692.6	622.9	591.6	567.3	553.3	546.4	553.3	567.3	591.6	622.9	692.6
77.5°	512.3	455.9	439.9	414.8	403.0	402.3	403.0	414.8	439.9	455.9	512.3
80°	403.7	358.5	334.1	320.2	316.7	313.2	316.7	320.2	334.1	358.5	403.7
82.5°	292.3	266.6	250.6	242.2	241.5	235.3	241.5	242.2	250.6	266.6	292.3
85°	156.6	149.6	146.2	142.7	139.2	139.2	139.2	142.7	146.2	149.6	156.6
87.5°	64.0	66.8	66.8	69.6	72.4	69.6	72.4	69.6	66.8	66.8	64.0
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-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	3678.5	3678.5	3678.5	3678.5
2.5°	3725.9	3720.3	3703.6	3703.6
5°	3776.0	3762.1	3723.8	3695.9
7.5°	3787.8	3767.6	3717.5	3661.1
10°	3779.5	3762.1	3706.4	3633.3
12.5°	3762.8	3742.6	3689.7	3594.3
15°	3727.3	3695.9	3647.2	3528.9
17.5°	3670.9	3643.0	3585.3	3434.9
20°	3626.3	3598.5	3532.4	3365.3
22.5°	3573.4	3545.6	3476.7	3270.7
25°	3487.1	3445.4	3386.2	3107.8
27.5°	3391.1	3345.8	3261.6	2928.9
30°	3327.0	3267.9	3153.0	2798.1
32.5°	3257.4	3187.1	2991.6	2650.5
35°	3132.2	3073.0	2794.6	2363.0
37.5°	2995.7	2952.6	2616.4	2039.4
40°	2895.5	2860.7	2446.6	1844.5
42.5°	2773.0	2763.3	2260.0	1699.7
45°	2606.6	2606.6	2150.7	1524.3
47.5°	2436.8	2438.2	1997.6	1478.4
50°	2328.2	2293.4	1886.3	1475.6
52.5°	2216.9	2106.9	1749.8	1367.0
55°	2032.4	1848.0	1538.2	1242.4
57.5°	1846.6	1611.3	1209.7	1201.4
60°	1701.8	1444.3	925.7	1120.6
62.5°	1562.6	1254.9	722.5	1037.1
65°	1357.3	859.6	563.8	863.1
67.5°	1161.7	545.7	428.8	623.6
70°	1033.6	403.7	306.3	487.2
72.5°	902.8	317.4	258.9	420.4
75°	706.5	226.2	261.0	327.1
77.5°	529.0	171.9	233.2	228.3
80°	403.7	135.7	191.4	181.0
82.5°	300.7	107.9	135.7	133.6
85°	149.6	62.6	69.6	55.7
87.5°	61.3	30.6	25.1	13.9
90°	0.0	0.0	0.0	0.0

(END OF REPORT)