

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-835-1D-UNV-STD-W-8

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-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

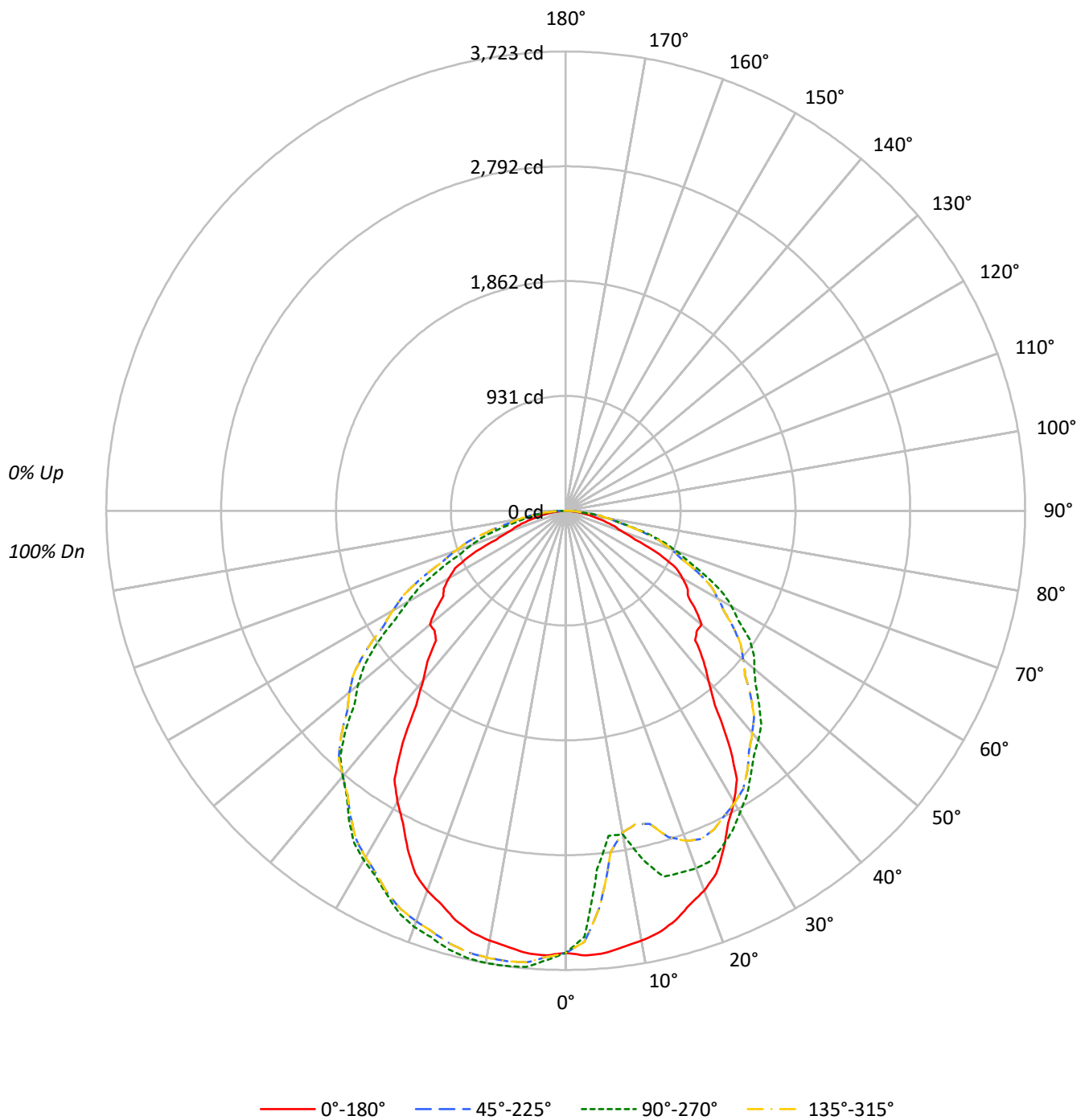
Lumens per Lamp: N/A
Luminaire Lumens: 9287.1 lumens
Efficiency: N/A
Efficacy: 101.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 91.1
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	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°	16532	16532	16532	16532
5°	16674	13518	16674	17192
10°	16581	12468	16581	17439
15°	16419	14671	16419	17569
20°	16096	15147	16096	17627
25°	15411	15290	15411	17465
30°	14521	15044	14521	17429
35°	12965	14721	12965	17242
40°	10821	14619	10821	16927
45°	9689	14444	9689	16457
50°	10317	14308	10317	15768
55°	9735	14616	9735	14971
60°	10073	14327	10073	13608
65°	9179	13694	9179	12250
70°	6403	12850	6403	10929
75°	5680	11361	5680	9488
80°	4684	8828	4684	8108
85°	2869	6103	2869	7177

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 16811 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	323.1	3.5
10°-20°	918.1	9.9
20°-30°	1418.9	15.3
30°-40°	1695.2	18.3
40°-50°	1706.2	18.4
50°-60°	1481.3	16.0
60°-70°	1048.6	11.3
70°-80°	554.6	6.0
80°-90°	141.1	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°	2660.1	28.6
0°-40°	4355.3	46.9
0°-60°	7542.8	81.2
0°-90°	9287.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	9287.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3584	3584	3584	3584	3584	
5°	3601	2919	3601	3713	3601	341
15°	3438	3072	3438	3679	3438	967
25°	3028	3004	3028	3431	3028	1389
35°	2302	2614	2302	3062	2302	1422
45°	1485	2214	1485	2523	1485	1196
55°	1210	1817	1210	1861	1210	1113
65°	841	1254	841	1122	841	800
75°	319	637	319	532	319	336
85°	54	115	54	136	54	78
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°	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8
2.5°	3608.2	3581.1	3570.3	3548.6	3507.9	3486.2	3502.5	3475.3	3486.2	3456.3	3486.2
5°	3600.8	3539.7	3488.9	3404.1	3282.1	3139.7	3105.8	3017.6	2963.4	2919.3	2963.4
7.5°	3566.9	3462.4	3307.2	3048.1	2839.9	2738.2	2713.1	2688.0	2681.3	2658.9	2681.3
10°	3539.7	3397.3	3109.1	2817.6	2671.8	2624.3	2634.5	2644.6	2665.0	2661.6	2665.0
12.5°	3501.8	3283.4	2903.0	2700.9	2604.0	2602.6	2677.9	2812.8	2906.4	2900.3	2906.4
15°	3438.0	3065.1	2709.1	2580.2	2549.7	2705.7	2980.3	3044.7	3068.5	3071.9	3068.5
17.5°	3346.5	2851.5	2585.0	2500.2	2604.0	2943.0	3026.4	3055.6	3075.9	3077.3	3075.9
20°	3278.7	2743.0	2522.6	2464.9	2739.6	2956.6	3007.4	3044.7	3078.6	3085.4	3078.6
22.5°	3186.5	2667.0	2457.5	2440.5	2815.5	2943.0	2988.4	3044.7	3073.2	3071.9	3073.2
25°	3027.8	2573.4	2376.8	2414.1	2824.3	2871.8	2960.0	2997.3	3000.6	3004.0	3000.6
27.5°	2853.5	2491.4	2282.5	2431.7	2769.4	2803.3	2898.3	2917.2	2930.1	2924.7	2930.1
30°	2726.0	2434.4	2217.4	2434.4	2726.0	2746.4	2841.3	2854.9	2837.9	2824.3	2837.9
32.5°	2582.3	2363.9	2155.0	2415.4	2660.9	2689.4	2765.3	2759.9	2743.0	2732.1	2743.0
35°	2302.2	2244.6	2041.1	2353.1	2549.7	2587.0	2631.1	2627.7	2624.3	2614.1	2624.3
37.5°	1986.9	2103.5	1928.6	2256.1	2442.6	2439.8	2505.6	2519.9	2516.5	2503.6	2516.5
40°	1797.0	1986.9	1858.0	2180.1	2366.6	2339.5	2424.3	2441.2	2437.8	2427.6	2437.8
42.5°	1656.0	1832.3	1776.7	2087.9	2274.4	2241.8	2345.6	2362.5	2353.7	2346.3	2353.7
45°	1485.1	1515.6	1651.2	1939.4	2119.1	2115.7	2227.6	2244.6	2224.2	2214.0	2224.2
47.5°	1440.3	1222.0	1514.2	1767.2	1965.2	1978.1	2098.1	2113.0	2094.7	2085.9	2094.7
50°	1437.6	1078.2	1413.9	1634.3	1864.8	1888.5	2014.0	2020.8	1997.0	1993.7	1997.0
52.5°	1331.8	996.8	1297.2	1517.6	1778.0	1807.2	1921.8	1920.4	1918.4	1923.1	1918.4
55°	1210.4	898.5	1095.2	1346.1	1644.4	1681.7	1783.4	1786.8	1810.6	1817.3	1810.6
57.5°	1170.4	787.3	908.0	1197.5	1510.2	1539.3	1634.9	1643.1	1659.3	1658.7	1659.3
60°	1091.8	708.6	796.8	1105.3	1407.1	1444.4	1529.1	1542.7	1556.3	1552.9	1556.3
62.5°	1010.4	654.4	742.5	1029.4	1309.4	1349.4	1407.1	1431.5	1436.9	1430.8	1436.9
65°	840.9	583.2	657.8	908.7	1159.6	1203.6	1240.9	1257.9	1261.3	1254.5	1261.3
67.5°	607.6	517.4	591.3	789.3	987.3	1036.8	1058.5	1068.7	1065.3	1077.5	1065.3
70°	474.7	471.3	542.5	705.2	881.5	925.6	939.2	949.4	946.0	952.7	946.0
72.5°	409.6	433.3	491.0	618.4	762.2	806.3	814.4	816.4	826.6	819.8	826.6
75°	318.7	369.6	406.9	488.2	596.7	627.3	630.6	634.0	627.3	637.4	627.3
77.5°	222.4	281.4	314.6	361.4	434.7	453.7	453.0	455.0	449.6	448.9	449.6
80°	176.3	213.6	244.1	274.6	328.9	342.4	339.1	335.7	335.7	332.3	335.7
82.5°	130.2	151.2	179.0	201.4	236.7	239.4	244.1	238.0	238.0	242.8	238.0
85°	54.2	71.2	91.5	101.7	115.3	118.7	111.9	122.1	115.3	115.3	115.3
87.5°	13.6	21.7	32.5	38.0	40.7	38.0	38.0	32.5	32.5	32.5	32.5
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°	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8
2.5°	3475.3	3502.5	3486.2	3507.9	3548.6	3570.3	3581.1	3608.2	3608.2	3624.5	3629.9
5°	3017.6	3105.8	3139.7	3282.1	3404.1	3488.9	3539.7	3600.8	3627.9	3665.2	3678.8
7.5°	2688.0	2713.1	2738.2	2839.9	3048.1	3307.2	3462.4	3566.9	3621.8	3670.6	3690.3
10°	2644.6	2634.5	2624.3	2671.8	2817.6	3109.1	3397.3	3539.7	3610.9	3665.2	3682.2
12.5°	2812.8	2677.9	2602.6	2604.0	2700.9	2903.0	3283.4	3501.8	3594.7	3646.2	3665.9
15°	3044.7	2980.3	2705.7	2549.7	2580.2	2709.1	3065.1	3438.0	3553.3	3600.8	3631.3
17.5°	3055.6	3026.4	2943.0	2604.0	2500.2	2585.0	2851.5	3346.5	3493.0	3549.2	3576.4
20°	3044.7	3007.4	2956.6	2739.6	2464.9	2522.6	2743.0	3278.7	3441.4	3505.8	3533.0
22.5°	3044.7	2988.4	2943.0	2815.5	2440.5	2457.5	2667.0	3186.5	3387.2	3454.3	3481.4
25°	2997.3	2960.0	2871.8	2824.3	2414.1	2376.8	2573.4	3027.8	3299.0	3356.7	3397.3
27.5°	2917.2	2898.3	2803.3	2769.4	2431.7	2282.5	2491.4	2853.5	3177.6	3259.7	3303.8
30°	2854.9	2841.3	2746.4	2726.0	2434.4	2217.4	2434.4	2726.0	3071.9	3183.7	3241.4
32.5°	2759.9	2765.3	2689.4	2660.9	2415.4	2155.0	2363.9	2582.3	2914.5	3105.1	3173.6
35°	2627.7	2631.1	2587.0	2549.7	2353.1	2041.1	2244.6	2302.2	2722.6	2993.9	3051.5
37.5°	2519.9	2505.6	2439.8	2442.6	2256.1	1928.6	2103.5	1986.9	2549.0	2876.6	2918.6
40°	2441.2	2424.3	2339.5	2366.6	2180.1	1858.0	1986.9	1797.0	2383.6	2787.0	2820.9
42.5°	2362.5	2345.6	2241.8	2274.4	2087.9	1776.7	1832.3	1656.0	2201.8	2692.1	2701.6
45°	2244.6	2227.6	2115.7	2119.1	1939.4	1651.2	1515.6	1485.1	2095.4	2539.5	2539.5
47.5°	2113.0	2098.1	1978.1	1965.2	1767.2	1514.2	1222.0	1440.3	1946.2	2375.4	2374.1
50°	2020.8	2014.0	1888.5	1864.8	1634.3	1413.9	1078.2	1437.6	1837.7	2234.4	2268.3
52.5°	1920.4	1921.8	1807.2	1778.0	1517.6	1297.2	996.8	1331.8	1704.8	2052.6	2159.8
55°	1786.8	1783.4	1681.7	1644.4	1346.1	1095.2	898.5	1210.4	1498.6	1800.4	1980.1
57.5°	1643.1	1634.9	1539.3	1510.2	1197.5	908.0	787.3	1170.4	1178.6	1569.8	1799.0
60°	1542.7	1529.1	1444.4	1407.1	1105.3	796.8	708.6	1091.8	901.9	1407.1	1658.0
62.5°	1431.5	1407.1	1349.4	1309.4	1029.4	742.5	654.4	1010.4	703.9	1222.6	1522.4
65°	1257.9	1240.9	1203.6	1159.6	908.7	657.8	583.2	840.9	549.3	837.5	1322.3
67.5°	1068.7	1058.5	1036.8	987.3	789.3	591.3	517.4	607.6	417.7	531.6	1131.8
70°	949.4	939.2	925.6	881.5	705.2	542.5	471.3	474.7	298.4	393.3	1007.0
72.5°	816.4	814.4	806.3	762.2	618.4	491.0	433.3	409.6	252.3	309.2	879.5
75°	634.0	630.6	627.3	596.7	488.2	406.9	369.6	318.7	254.3	220.4	688.3
77.5°	455.0	453.0	453.7	434.7	361.4	314.6	281.4	222.4	227.2	167.5	515.4
80°	335.7	339.1	342.4	328.9	274.6	244.1	213.6	176.3	186.5	132.2	393.3
82.5°	238.0	244.1	239.4	236.7	201.4	179.0	151.2	130.2	132.2	105.1	292.9
85°	122.1	111.9	118.7	115.3	101.7	91.5	71.2	54.2	67.8	61.0	145.8
87.5°	32.5	38.0	38.0	40.7	38.0	32.5	21.7	13.6	24.4	29.8	59.7
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°	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8	3583.8
2.5°	3621.8	3621.8	3646.2	3651.6	3657.1	3648.9	3657.1	3651.6	3646.2	3621.8	3621.8
5°	3675.4	3675.4	3709.3	3719.4	3719.4	3712.7	3719.4	3719.4	3709.3	3675.4	3675.4
7.5°	3680.1	3685.5	3719.4	3726.9	3733.0	3722.8	3733.0	3726.9	3719.4	3685.5	3680.1
10°	3672.0	3685.5	3719.4	3729.6	3733.0	3722.8	3733.0	3729.6	3719.4	3685.5	3672.0
12.5°	3661.1	3672.0	3705.9	3713.3	3719.4	3712.0	3719.4	3713.3	3705.9	3672.0	3661.1
15°	3624.5	3638.1	3675.4	3682.2	3688.9	3678.8	3688.9	3682.2	3675.4	3638.1	3624.5
17.5°	3573.7	3590.6	3624.5	3635.4	3638.8	3625.9	3638.8	3635.4	3624.5	3590.6	3573.7
20°	3533.0	3549.9	3583.8	3597.4	3600.8	3590.6	3600.8	3597.4	3583.8	3549.9	3533.0
22.5°	3481.4	3509.2	3540.4	3545.9	3541.1	3530.9	3541.1	3545.9	3540.4	3509.2	3481.4
25°	3407.5	3431.2	3441.4	3441.4	3441.4	3431.2	3441.4	3441.4	3441.4	3431.2	3407.5
27.5°	3313.3	3325.5	3331.6	3337.0	3343.8	3337.0	3343.8	3337.0	3331.6	3325.5	3313.3
30°	3248.2	3241.4	3258.3	3271.9	3278.7	3271.9	3278.7	3271.9	3258.3	3241.4	3248.2
32.5°	3158.6	3162.7	3187.8	3195.9	3197.3	3190.5	3197.3	3195.9	3187.8	3162.7	3158.6
35°	3027.8	3044.7	3061.7	3068.5	3071.9	3061.7	3071.9	3068.5	3061.7	3044.7	3027.8
37.5°	2889.4	2919.3	2931.5	2924.0	2924.7	2913.8	2924.7	2924.0	2931.5	2919.3	2889.4
40°	2797.2	2824.3	2831.1	2820.9	2824.3	2810.8	2824.3	2820.9	2831.1	2824.3	2797.2
42.5°	2710.4	2732.1	2725.3	2712.5	2710.4	2705.0	2710.4	2712.5	2725.3	2732.1	2710.4
45°	2566.7	2576.8	2546.3	2536.1	2529.4	2522.6	2529.4	2536.1	2546.3	2576.8	2566.7
47.5°	2409.3	2395.8	2366.6	2351.0	2332.0	2319.1	2332.0	2351.0	2366.6	2395.8	2409.3
50°	2309.0	2268.3	2244.6	2207.3	2193.7	2197.1	2193.7	2207.3	2244.6	2268.3	2309.0
52.5°	2186.9	2138.1	2100.8	2068.9	2058.1	2056.0	2058.1	2068.9	2100.8	2138.1	2186.9
55°	2010.6	1936.0	1875.0	1858.0	1854.6	1861.4	1854.6	1858.0	1875.0	1936.0	2010.6
57.5°	1794.3	1721.0	1670.9	1657.3	1645.8	1634.9	1645.8	1657.3	1670.9	1721.0	1794.3
60°	1647.8	1580.0	1532.5	1519.0	1488.5	1474.9	1488.5	1519.0	1532.5	1580.0	1647.8
62.5°	1517.6	1436.2	1399.6	1372.5	1350.1	1328.4	1350.1	1372.5	1399.6	1436.2	1517.6
65°	1329.1	1234.2	1196.9	1173.1	1132.4	1122.3	1132.4	1173.1	1196.9	1234.2	1329.1
67.5°	1123.0	1040.2	993.4	961.6	935.8	935.1	935.8	961.6	993.4	1040.2	1123.0
70°	990.0	915.5	871.4	834.1	813.7	810.3	813.7	834.1	871.4	915.5	990.0
72.5°	859.8	788.0	749.3	714.7	697.1	693.7	697.1	714.7	749.3	788.0	859.8
75°	674.7	606.9	576.4	552.7	539.1	532.3	539.1	552.7	576.4	606.9	674.7
77.5°	499.1	444.2	428.6	404.2	392.6	391.9	392.6	404.2	428.6	444.2	499.1
80°	393.3	349.2	325.5	311.9	308.5	305.2	308.5	311.9	325.5	349.2	393.3
82.5°	284.8	259.7	244.1	236.0	235.3	229.2	235.3	236.0	244.1	259.7	284.8
85°	152.6	145.8	142.4	139.0	135.6	135.6	135.6	139.0	142.4	145.8	152.6
87.5°	62.4	65.1	65.1	67.8	70.5	67.8	70.5	67.8	65.1	65.1	62.4
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-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	3583.8	3583.8	3583.8	3583.8
2.5°	3629.9	3624.5	3608.2	3608.2
5°	3678.8	3665.2	3627.9	3600.8
7.5°	3690.3	3670.6	3621.8	3566.9
10°	3682.2	3665.2	3610.9	3539.7
12.5°	3665.9	3646.2	3594.7	3501.8
15°	3631.3	3600.8	3553.3	3438.0
17.5°	3576.4	3549.2	3493.0	3346.5
20°	3533.0	3505.8	3441.4	3278.7
22.5°	3481.4	3454.3	3387.2	3186.5
25°	3397.3	3356.7	3299.0	3027.8
27.5°	3303.8	3259.7	3177.6	2853.5
30°	3241.4	3183.7	3071.9	2726.0
32.5°	3173.6	3105.1	2914.5	2582.3
35°	3051.5	2993.9	2722.6	2302.2
37.5°	2918.6	2876.6	2549.0	1986.9
40°	2820.9	2787.0	2383.6	1797.0
42.5°	2701.6	2692.1	2201.8	1656.0
45°	2539.5	2539.5	2095.4	1485.1
47.5°	2374.1	2375.4	1946.2	1440.3
50°	2268.3	2234.4	1837.7	1437.6
52.5°	2159.8	2052.6	1704.8	1331.8
55°	1980.1	1800.4	1498.6	1210.4
57.5°	1799.0	1569.8	1178.6	1170.4
60°	1658.0	1407.1	901.9	1091.8
62.5°	1522.4	1222.6	703.9	1010.4
65°	1322.3	837.5	549.3	840.9
67.5°	1131.8	531.6	417.7	607.6
70°	1007.0	393.3	298.4	474.7
72.5°	879.5	309.2	252.3	409.6
75°	688.3	220.4	254.3	318.7
77.5°	515.4	167.5	227.2	222.4
80°	393.3	132.2	186.5	176.3
82.5°	292.9	105.1	132.2	130.2
85°	145.8	61.0	67.8	54.2
87.5°	59.7	29.8	24.4	13.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)