

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-075D-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-075D-835-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

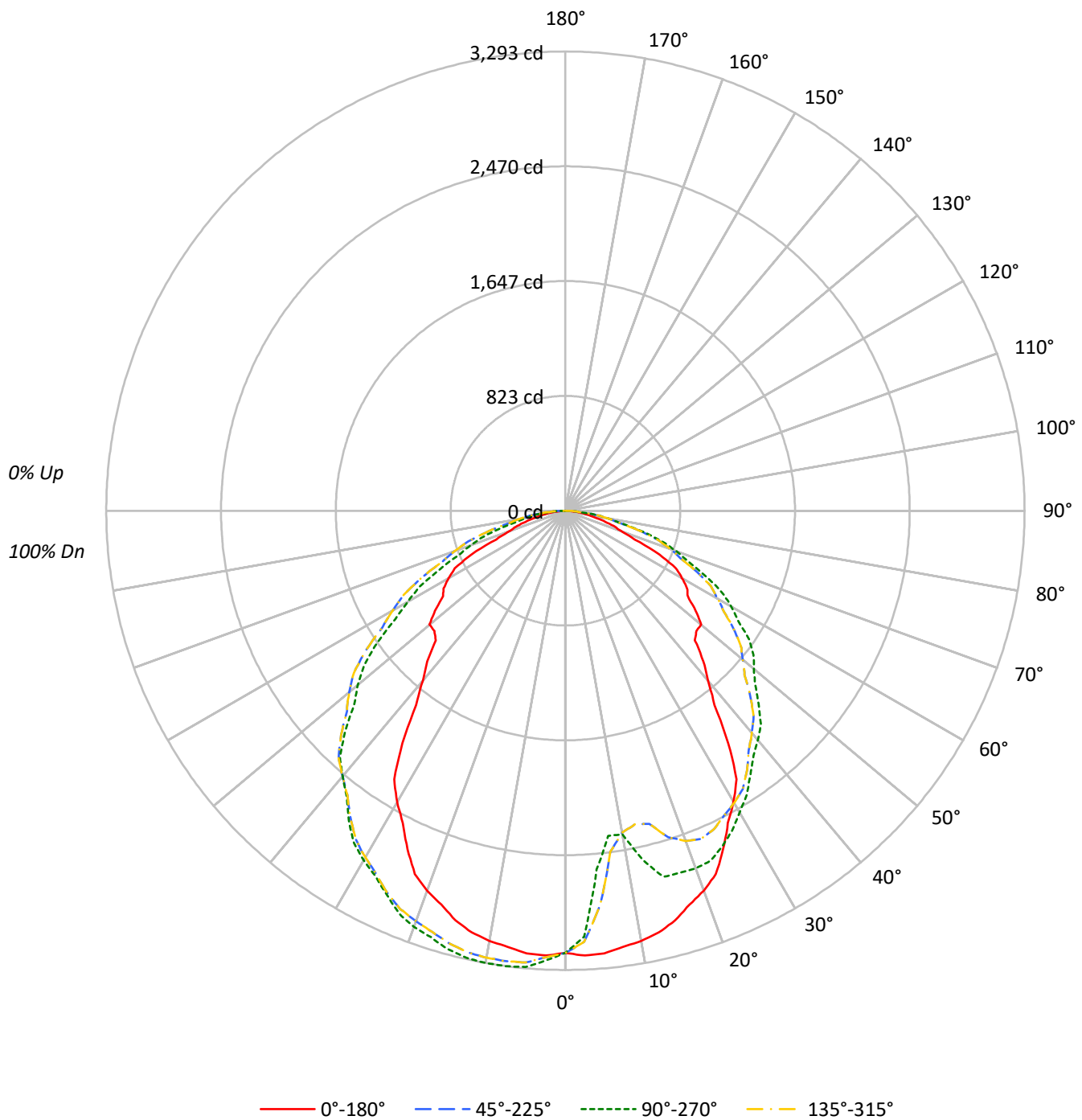
Lumens per Lamp: N/A
Luminaire Lumens: 8215.6 lumens
Efficiency: N/A
Efficacy: 103.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 79.4
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°	9750	9750	9750	9750
5°	9833	7973	9833	10139
10°	9779	7353	9779	10284
15°	9683	8652	9683	10361
20°	9492	8933	9492	10395
25°	9089	9017	9089	10300
30°	8564	8873	8564	10278
35°	7646	8682	7646	10168
40°	6382	8622	6382	9982
45°	5714	8518	5714	9705
50°	6084	8438	6084	9299
55°	5741	8620	5741	8829
60°	5940	8449	5940	8025
65°	5413	8076	5413	7225
70°	3776	7578	3776	6446
75°	3350	6701	3350	5595
80°	2763	5205	2763	4780
85°	1694	3599	1694	4234

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 9914 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	285.8	3.5
10°-20°	812.2	9.9
20°-30°	1255.2	15.3
30°-40°	1499.6	18.3
40°-50°	1509.3	18.4
50°-60°	1310.4	16.0
60°-70°	927.6	11.3
70°-80°	490.6	6.0
80°-90°	124.8	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°	2353.2	28.6
0°-40°	3852.8	46.9
0°-60°	6672.5	81.2
0°-90°	8215.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8215.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3170	3170	3170	3170	3170	
5°	3185	2582	3185	3284	3185	302
15°	3041	2717	3041	3254	3041	855
25°	2678	2657	2678	3035	2678	1228
35°	2037	2312	2037	2708	2037	1258
45°	1314	1959	1314	2232	1314	1058
55°	1071	1608	1071	1647	1071	985
65°	744	1110	744	993	744	708
75°	282	564	282	471	282	297
85°	48	102	48	120	48	69
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°	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3
2.5°	3191.9	3167.9	3158.3	3139.1	3103.2	3084.0	3098.4	3074.4	3084.0	3057.6	3084.0
5°	3185.3	3131.3	3086.4	3011.4	2903.4	2777.4	2747.4	2669.4	2621.5	2582.5	2621.5
7.5°	3155.3	3063.0	2925.6	2696.4	2512.3	2422.3	2400.1	2377.9	2371.9	2352.1	2371.9
10°	3131.3	3005.4	2750.4	2492.5	2363.5	2321.5	2330.5	2339.5	2357.5	2354.5	2357.5
12.5°	3097.8	2904.6	2568.1	2389.3	2303.5	2302.3	2368.9	2488.3	2571.1	2565.7	2571.1
15°	3041.4	2711.4	2396.5	2282.5	2255.5	2393.5	2636.4	2693.4	2714.4	2717.4	2714.4
17.5°	2960.4	2522.5	2286.7	2211.7	2303.5	2603.5	2677.2	2703.0	2721.0	2722.2	2721.0
20°	2900.4	2426.5	2231.5	2180.5	2423.5	2615.5	2660.4	2693.4	2723.4	2729.4	2723.4
22.5°	2818.8	2359.3	2173.9	2158.9	2490.7	2603.5	2643.6	2693.4	2718.6	2717.4	2718.6
25°	2678.4	2276.5	2102.6	2135.6	2498.5	2540.5	2618.5	2651.4	2654.4	2657.4	2654.4
27.5°	2524.3	2203.9	2019.2	2151.2	2449.9	2479.9	2563.9	2580.7	2592.1	2587.3	2592.1
30°	2411.5	2153.6	1961.6	2153.6	2411.5	2429.5	2513.5	2525.5	2510.5	2498.5	2510.5
32.5°	2284.3	2091.2	1906.4	2136.8	2353.9	2379.1	2446.3	2441.5	2426.5	2416.9	2426.5
35°	2036.6	1985.6	1805.6	2081.6	2255.5	2288.5	2327.5	2324.5	2321.5	2312.5	2321.5
37.5°	1757.6	1860.8	1706.0	1995.8	2160.7	2158.3	2216.5	2229.1	2226.1	2214.7	2226.1
40°	1589.7	1757.6	1643.7	1928.6	2093.6	2069.6	2144.6	2159.5	2156.5	2147.6	2156.5
42.5°	1464.9	1620.9	1571.7	1847.0	2012.0	1983.2	2075.0	2090.0	2082.2	2075.6	2082.2
45°	1313.7	1340.7	1460.7	1715.6	1874.6	1871.6	1970.6	1985.6	1967.6	1958.6	1967.6
47.5°	1274.1	1081.0	1339.5	1563.3	1738.4	1749.8	1856.0	1869.2	1853.0	1845.2	1853.0
50°	1271.7	953.8	1250.7	1445.7	1649.7	1670.7	1781.6	1787.6	1766.6	1763.6	1766.6
52.5°	1178.2	881.8	1147.6	1342.5	1572.9	1598.7	1700.0	1698.8	1697.0	1701.2	1697.0
55°	1070.8	794.8	968.8	1190.8	1454.7	1487.7	1577.7	1580.7	1601.7	1607.7	1601.7
57.5°	1035.4	696.5	803.2	1059.4	1335.9	1361.7	1446.3	1453.5	1467.9	1467.3	1467.9
60°	965.8	626.9	704.9	977.8	1244.7	1277.7	1352.7	1364.7	1376.7	1373.7	1376.7
62.5°	893.8	578.9	656.9	910.6	1158.4	1193.8	1244.7	1266.3	1271.1	1265.7	1271.1
65°	743.8	515.9	581.9	803.8	1025.8	1064.8	1097.8	1112.8	1115.8	1109.8	1115.8
67.5°	537.5	457.7	523.1	698.3	873.4	917.2	936.4	945.4	942.4	953.2	942.4
70°	419.9	416.9	479.9	623.9	779.8	818.8	830.8	839.8	836.8	842.8	836.8
72.5°	362.3	383.3	434.3	547.1	674.3	713.3	720.4	722.2	731.2	725.2	731.2
75°	281.9	326.9	359.9	431.9	527.9	554.9	557.9	560.9	554.9	563.9	554.9
77.5°	196.8	248.9	278.3	319.7	384.5	401.3	400.7	402.5	397.7	397.1	397.7
80°	156.0	189.0	216.0	242.9	290.9	302.9	299.9	296.9	296.9	293.9	296.9
82.5°	115.2	133.8	158.4	178.2	209.4	211.8	216.0	210.6	210.6	214.8	210.6
85°	48.0	63.0	81.0	90.0	102.0	105.0	99.0	108.0	102.0	102.0	102.0
87.5°	12.0	19.2	28.8	33.6	36.0	33.6	33.6	28.8	28.8	28.8	28.8
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°	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3
2.5°	3074.4	3098.4	3084.0	3103.2	3139.1	3158.3	3167.9	3191.9	3191.9	3206.3	3211.1
5°	2669.4	2747.4	2777.4	2903.4	3011.4	3086.4	3131.3	3185.3	3209.3	3242.3	3254.3
7.5°	2377.9	2400.1	2422.3	2512.3	2696.4	2925.6	3063.0	3155.3	3203.9	3247.1	3264.5
10°	2339.5	2330.5	2321.5	2363.5	2492.5	2750.4	3005.4	3131.3	3194.3	3242.3	3257.3
12.5°	2488.3	2368.9	2302.3	2303.5	2389.3	2568.1	2904.6	3097.8	3179.9	3225.5	3242.9
15°	2693.4	2636.4	2393.5	2255.5	2282.5	2396.5	2711.4	3041.4	3143.3	3185.3	3212.3
17.5°	2703.0	2677.2	2603.5	2303.5	2211.7	2286.7	2522.5	2960.4	3090.0	3139.7	3163.7
20°	2693.4	2660.4	2615.5	2423.5	2180.5	2231.5	2426.5	2900.4	3044.4	3101.4	3125.3
22.5°	2693.4	2643.6	2603.5	2490.7	2158.9	2173.9	2359.3	2818.8	2996.4	3055.8	3079.8
25°	2651.4	2618.5	2540.5	2498.5	2135.6	2102.6	2276.5	2678.4	2918.4	2969.4	3005.4
27.5°	2580.7	2563.9	2479.9	2449.9	2151.2	2019.2	2203.9	2524.3	2811.0	2883.6	2922.6
30°	2525.5	2513.5	2429.5	2411.5	2153.6	1961.6	2153.6	2411.5	2717.4	2816.4	2867.4
32.5°	2441.5	2446.3	2379.1	2353.9	2136.8	1906.4	2091.2	2284.3	2578.3	2746.8	2807.4
35°	2324.5	2327.5	2288.5	2255.5	2081.6	1805.6	1985.6	2036.6	2408.5	2648.4	2699.4
37.5°	2229.1	2216.5	2158.3	2160.7	1995.8	1706.0	1860.8	1757.6	2254.9	2544.7	2581.9
40°	2159.5	2144.6	2069.6	2093.6	1928.6	1643.7	1757.6	1589.7	2108.6	2465.5	2495.5
42.5°	2090.0	2075.0	1983.2	2012.0	1847.0	1571.7	1620.9	1464.9	1947.8	2381.5	2389.9
45°	1985.6	1970.6	1871.6	1874.6	1715.6	1460.7	1340.7	1313.7	1853.6	2246.5	2246.5
47.5°	1869.2	1856.0	1749.8	1738.4	1563.3	1339.5	1081.0	1274.1	1721.6	2101.4	2100.2
50°	1787.6	1781.6	1670.7	1649.7	1445.7	1250.7	953.8	1271.7	1625.7	1976.6	2006.6
52.5°	1698.8	1700.0	1598.7	1572.9	1342.5	1147.6	881.8	1178.2	1508.1	1815.8	1910.6
55°	1580.7	1577.7	1487.7	1454.7	1190.8	968.8	794.8	1070.8	1325.7	1592.7	1751.6
57.5°	1453.5	1446.3	1361.7	1335.9	1059.4	803.2	696.5	1035.4	1042.6	1388.7	1591.5
60°	1364.7	1352.7	1277.7	1244.7	977.8	704.9	626.9	965.8	797.8	1244.7	1466.7
62.5°	1266.3	1244.7	1193.8	1158.4	910.6	656.9	578.9	893.8	622.7	1081.6	1346.7
65°	1112.8	1097.8	1064.8	1025.8	803.8	581.9	515.9	743.8	485.9	740.8	1169.8
67.5°	945.4	936.4	917.2	873.4	698.3	523.1	457.7	537.5	369.5	470.3	1001.2
70°	839.8	830.8	818.8	779.8	623.9	479.9	416.9	419.9	263.9	347.9	890.8
72.5°	722.2	720.4	713.3	674.3	547.1	434.3	383.3	362.3	223.2	273.5	778.0
75°	560.9	557.9	554.9	527.9	431.9	359.9	326.9	281.9	225.0	195.0	608.9
77.5°	402.5	400.7	401.3	384.5	319.7	278.3	248.9	196.8	201.0	148.2	455.9
80°	296.9	299.9	302.9	290.9	242.9	216.0	189.0	156.0	165.0	117.0	347.9
82.5°	210.6	216.0	211.8	209.4	178.2	158.4	133.8	115.2	117.0	93.0	259.1
85°	108.0	99.0	105.0	102.0	90.0	81.0	63.0	48.0	60.0	54.0	129.0
87.5°	28.8	33.6	33.6	36.0	33.6	28.8	19.2	12.0	21.6	26.4	52.8
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°	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3	3170.3
2.5°	3203.9	3203.9	3225.5	3230.3	3235.1	3227.9	3235.1	3230.3	3225.5	3203.9	3203.9
5°	3251.3	3251.3	3281.3	3290.3	3290.3	3284.3	3290.3	3290.3	3281.3	3251.3	3251.3
7.5°	3255.5	3260.3	3290.3	3296.9	3302.3	3293.3	3302.3	3296.9	3290.3	3260.3	3255.5
10°	3248.3	3260.3	3290.3	3299.3	3302.3	3293.3	3302.3	3299.3	3290.3	3260.3	3248.3
12.5°	3238.7	3248.3	3278.3	3284.9	3290.3	3283.7	3290.3	3284.9	3278.3	3248.3	3238.7
15°	3206.3	3218.3	3251.3	3257.3	3263.3	3254.3	3263.3	3257.3	3251.3	3218.3	3206.3
17.5°	3161.3	3176.3	3206.3	3215.9	3218.9	3207.5	3218.9	3215.9	3206.3	3176.3	3161.3
20°	3125.3	3140.3	3170.3	3182.3	3185.3	3176.3	3185.3	3182.3	3170.3	3140.3	3125.3
22.5°	3079.8	3104.4	3131.9	3136.7	3132.5	3123.5	3132.5	3136.7	3131.9	3104.4	3079.8
25°	3014.4	3035.4	3044.4	3044.4	3044.4	3035.4	3044.4	3044.4	3044.4	3035.4	3014.4
27.5°	2931.0	2941.8	2947.2	2952.0	2958.0	2952.0	2958.0	2952.0	2947.2	2941.8	2931.0
30°	2873.4	2867.4	2882.4	2894.4	2900.4	2894.4	2900.4	2894.4	2882.4	2867.4	2873.4
32.5°	2794.2	2797.8	2820.0	2827.2	2828.4	2822.4	2828.4	2827.2	2820.0	2797.8	2794.2
35°	2678.4	2693.4	2708.4	2714.4	2717.4	2708.4	2717.4	2714.4	2708.4	2693.4	2678.4
37.5°	2556.1	2582.5	2593.3	2586.7	2587.3	2577.7	2587.3	2586.7	2593.3	2582.5	2556.1
40°	2474.5	2498.5	2504.5	2495.5	2498.5	2486.5	2498.5	2495.5	2504.5	2498.5	2474.5
42.5°	2397.7	2416.9	2410.9	2399.5	2397.7	2392.9	2397.7	2399.5	2410.9	2416.9	2397.7
45°	2270.5	2279.5	2252.5	2243.5	2237.5	2231.5	2237.5	2243.5	2252.5	2279.5	2270.5
47.5°	2131.4	2119.4	2093.6	2079.8	2063.0	2051.6	2063.0	2079.8	2093.6	2119.4	2131.4
50°	2042.6	2006.6	1985.6	1952.6	1940.6	1943.6	1940.6	1952.6	1985.6	2006.6	2042.6
52.5°	1934.6	1891.4	1858.4	1830.2	1820.6	1818.8	1820.6	1830.2	1858.4	1891.4	1934.6
55°	1778.6	1712.6	1658.7	1643.7	1640.7	1646.7	1640.7	1643.7	1658.7	1712.6	1778.6
57.5°	1587.3	1522.5	1478.1	1466.1	1455.9	1446.3	1455.9	1466.1	1478.1	1522.5	1587.3
60°	1457.7	1397.7	1355.7	1343.7	1316.7	1304.7	1316.7	1343.7	1355.7	1397.7	1457.7
62.5°	1342.5	1270.5	1238.1	1214.1	1194.4	1175.2	1194.4	1214.1	1238.1	1270.5	1342.5
65°	1175.8	1091.8	1058.8	1037.8	1001.8	992.8	1001.8	1037.8	1058.8	1091.8	1175.8
67.5°	993.4	920.2	878.8	850.6	827.8	827.2	827.8	850.6	878.8	920.2	993.4
70°	875.8	809.8	770.8	737.8	719.8	716.9	719.8	737.8	770.8	809.8	875.8
72.5°	760.6	697.1	662.9	632.3	616.7	613.7	616.7	632.3	662.9	697.1	760.6
75°	596.9	536.9	509.9	488.9	476.9	470.9	476.9	488.9	509.9	536.9	596.9
77.5°	441.5	392.9	379.1	357.5	347.3	346.7	347.3	357.5	379.1	392.9	441.5
80°	347.9	308.9	287.9	275.9	272.9	269.9	272.9	275.9	287.9	308.9	347.9
82.5°	251.9	229.8	216.0	208.8	208.2	202.8	208.2	208.8	216.0	229.8	251.9
85°	135.0	129.0	126.0	123.0	120.0	120.0	120.0	123.0	126.0	129.0	135.0
87.5°	55.2	57.6	57.6	60.0	62.4	60.0	62.4	60.0	57.6	57.6	55.2
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-075D-835-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	3170.3	3170.3	3170.3	3170.3
2.5°	3211.1	3206.3	3191.9	3191.9
5°	3254.3	3242.3	3209.3	3185.3
7.5°	3264.5	3247.1	3203.9	3155.3
10°	3257.3	3242.3	3194.3	3131.3
12.5°	3242.9	3225.5	3179.9	3097.8
15°	3212.3	3185.3	3143.3	3041.4
17.5°	3163.7	3139.7	3090.0	2960.4
20°	3125.3	3101.4	3044.4	2900.4
22.5°	3079.8	3055.8	2996.4	2818.8
25°	3005.4	2969.4	2918.4	2678.4
27.5°	2922.6	2883.6	2811.0	2524.3
30°	2867.4	2816.4	2717.4	2411.5
32.5°	2807.4	2746.8	2578.3	2284.3
35°	2699.4	2648.4	2408.5	2036.6
37.5°	2581.9	2544.7	2254.9	1757.6
40°	2495.5	2465.5	2108.6	1589.7
42.5°	2389.9	2381.5	1947.8	1464.9
45°	2246.5	2246.5	1853.6	1313.7
47.5°	2100.2	2101.4	1721.6	1274.1
50°	2006.6	1976.6	1625.7	1271.7
52.5°	1910.6	1815.8	1508.1	1178.2
55°	1751.6	1592.7	1325.7	1070.8
57.5°	1591.5	1388.7	1042.6	1035.4
60°	1466.7	1244.7	797.8	965.8
62.5°	1346.7	1081.6	622.7	893.8
65°	1169.8	740.8	485.9	743.8
67.5°	1001.2	470.3	369.5	537.5
70°	890.8	347.9	263.9	419.9
72.5°	778.0	273.5	223.2	362.3
75°	608.9	195.0	225.0	281.9
77.5°	455.9	148.2	201.0	196.8
80°	347.9	117.0	165.0	156.0
82.5°	259.1	93.0	117.0	115.2
85°	129.0	54.0	60.0	48.0
87.5°	52.8	26.4	21.6	12.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)