

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-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-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

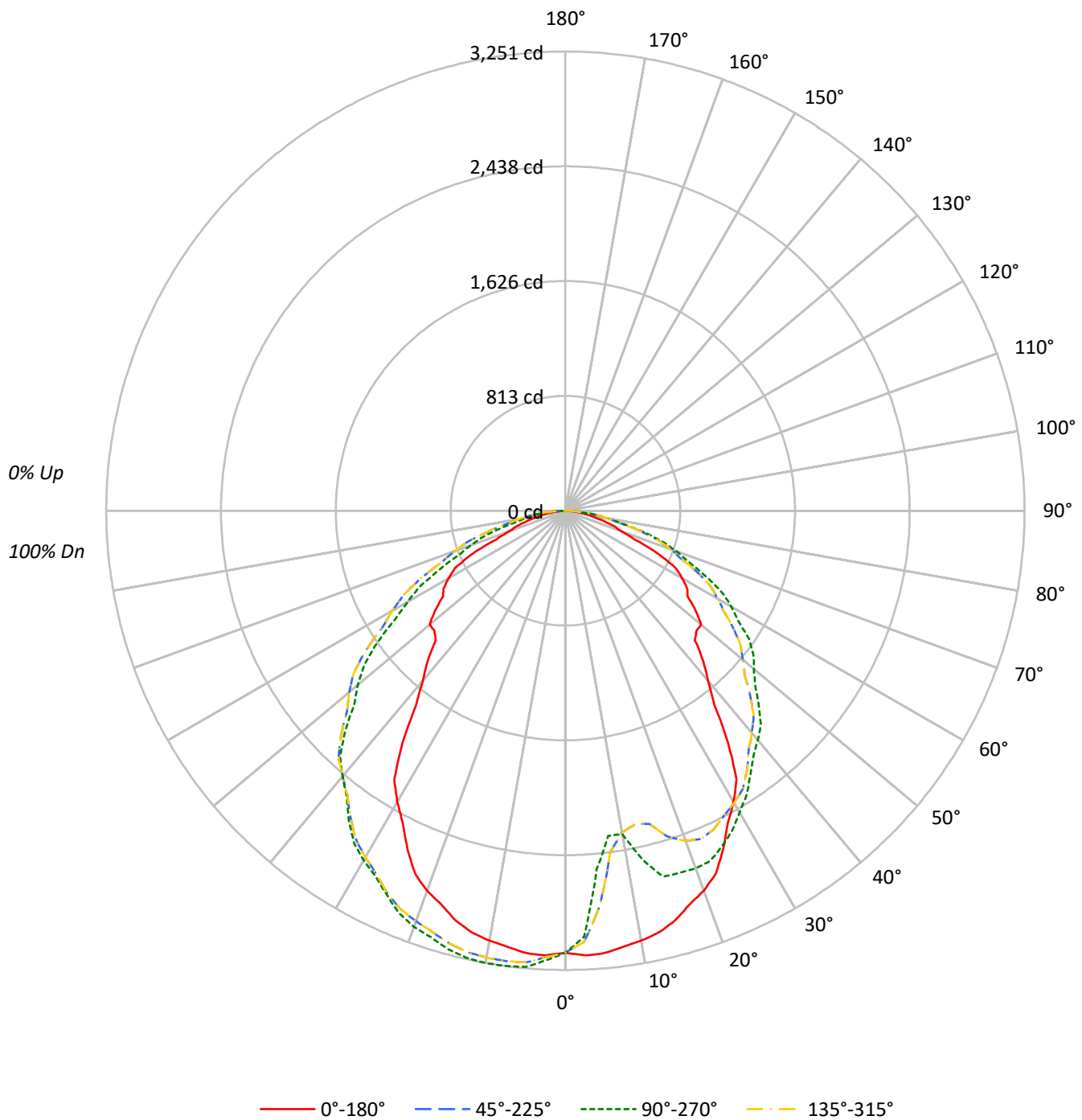
Lumens per Lamp: N/A
Luminaire Lumens: 8109.3 lumens
Efficiency: N/A
Efficacy: 89.0 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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				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°	14559	11804	14559	15012
10°	14478	10886	14478	15227
15°	14337	12810	14337	15341
20°	14054	13226	14054	15391
25°	13457	13352	13457	15250
30°	12679	13137	12679	15219
35°	11321	12855	11321	15055
40°	9449	12765	9449	14780
45°	8460	12613	8460	14370
50°	9009	12493	9009	13768
55°	8500	12763	8500	13073
60°	8795	12510	8795	11882
65°	8014	11957	8014	10696
70°	5591	11221	5591	9544
75°	4960	9921	4960	8284
80°	4088	7707	4088	7080
85°	2509	5330	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°	282.1	3.5
10°-20°	801.7	9.9
20°-30°	1238.9	15.3
30°-40°	1480.2	18.3
40°-50°	1489.8	18.4
50°-60°	1293.4	16.0
60°-70°	915.6	11.3
70°-80°	484.3	6.0
80°-90°	123.2	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°	2322.7	28.6
0°-40°	3803.0	46.9
0°-60°	6586.2	81.2
0°-90°	8109.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8109.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3129	3129	3129	3129	3129	
5°	3144	2549	3144	3242	3144	298
15°	3002	2682	3002	3212	3002	844
25°	2644	2623	2644	2996	2644	1212
35°	2010	2283	2010	2673	2010	1241
45°	1297	1933	1297	2203	1297	1044
55°	1057	1587	1057	1625	1057	972
65°	734	1095	734	980	734	699
75°	278	557	278	465	278	294
85°	47	101	47	118	47	68
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°	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3
2.5°	3150.6	3127.0	3117.5	3098.5	3063.0	3044.1	3058.3	3034.6	3044.1	3018.0	3044.1
5°	3144.1	3090.8	3046.4	2972.4	2865.8	2741.5	2711.9	2634.9	2587.5	2549.1	2587.5
7.5°	3114.5	3023.3	2887.7	2661.6	2479.8	2391.0	2369.0	2347.1	2341.2	2321.7	2341.2
10°	3090.8	2966.5	2714.8	2460.2	2332.9	2291.5	2300.4	2309.2	2327.0	2324.0	2327.0
12.5°	3057.7	2867.0	2534.8	2358.4	2273.7	2272.5	2338.3	2456.1	2537.8	2532.5	2537.8
15°	3002.0	2676.4	2365.5	2253.0	2226.3	2362.5	2602.3	2658.6	2679.3	2682.3	2679.3
17.5°	2922.1	2489.8	2257.1	2183.1	2273.7	2569.8	2642.6	2668.1	2685.8	2687.0	2685.8
20°	2862.9	2395.1	2202.7	2152.3	2392.1	2581.6	2626.0	2658.6	2688.2	2694.1	2688.2
22.5°	2782.3	2328.8	2145.8	2131.0	2458.5	2569.8	2609.4	2658.6	2683.5	2682.3	2683.5
25°	2643.8	2247.1	2075.4	2107.9	2466.2	2507.6	2584.6	2617.1	2620.1	2623.1	2620.1
27.5°	2491.6	2175.4	1993.1	2123.3	2418.2	2447.8	2530.7	2547.3	2558.5	2553.8	2558.5
30°	2380.3	2125.7	1936.2	2125.7	2380.3	2398.1	2481.0	2492.8	2478.0	2466.2	2478.0
32.5°	2254.8	2064.1	1881.7	2109.1	2323.5	2348.3	2414.6	2409.9	2395.1	2385.6	2395.1
35°	2010.2	1959.9	1782.3	2054.6	2226.3	2258.9	2297.4	2294.4	2291.5	2282.6	2291.5
37.5°	1734.9	1836.7	1684.0	1970.0	2132.8	2130.4	2187.9	2200.3	2197.3	2186.1	2197.3
40°	1569.1	1734.9	1622.4	1903.6	2066.5	2042.8	2116.8	2131.6	2128.7	2119.8	2128.7
42.5°	1445.9	1599.9	1551.3	1823.1	1986.0	1957.5	2048.1	2062.9	2055.2	2048.7	2055.2
45°	1296.7	1323.4	1441.8	1693.4	1850.4	1847.4	1945.1	1959.9	1942.1	1933.3	1942.1
47.5°	1257.7	1067.0	1322.2	1543.0	1715.9	1727.2	1832.0	1845.0	1829.0	1821.3	1829.0
50°	1255.3	941.5	1234.6	1427.0	1628.3	1649.0	1758.6	1764.5	1743.8	1740.8	1743.8
52.5°	1162.9	870.4	1132.7	1325.2	1552.5	1578.0	1678.1	1676.9	1675.1	1679.2	1675.1
55°	1056.9	784.6	956.3	1175.3	1435.9	1468.4	1557.3	1560.2	1580.9	1586.9	1580.9
57.5°	1022.0	687.4	792.8	1045.7	1318.6	1344.1	1427.6	1434.7	1448.9	1448.3	1448.9
60°	953.3	618.8	695.7	965.1	1228.6	1261.2	1335.2	1347.1	1358.9	1355.9	1358.9
62.5°	882.3	571.4	648.4	898.8	1143.4	1178.3	1228.6	1250.0	1254.7	1249.4	1254.7
65°	734.2	509.2	574.4	793.4	1012.5	1051.0	1083.6	1098.4	1101.3	1095.4	1101.3
67.5°	530.5	451.8	516.3	689.2	862.1	905.3	924.3	933.2	930.2	940.9	930.2
70°	414.5	411.5	473.7	615.8	769.7	808.2	820.1	829.0	826.0	831.9	826.0
72.5°	357.6	378.4	428.7	540.0	665.5	704.0	711.1	712.9	721.8	715.9	721.8
75°	278.3	322.7	355.3	426.3	521.1	547.7	550.7	553.6	547.7	556.6	547.7
77.5°	194.2	245.7	274.7	315.6	379.5	396.1	395.5	397.3	392.6	392.0	392.6
80°	153.9	186.5	213.2	239.8	287.2	299.0	296.1	293.1	293.1	290.1	293.1
82.5°	113.7	132.0	156.3	175.9	206.6	209.0	213.2	207.8	207.8	212.0	207.8
85°	47.4	62.2	79.9	88.8	100.7	103.6	97.7	106.6	100.7	100.7	100.7
87.5°	11.8	18.9	28.4	33.2	35.5	33.2	33.2	28.4	28.4	28.4	28.4
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°	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3
2.5°	3034.6	3058.3	3044.1	3063.0	3098.5	3117.5	3127.0	3150.6	3150.6	3164.9	3169.6
5°	2634.9	2711.9	2741.5	2865.8	2972.4	3046.4	3090.8	3144.1	3167.8	3200.4	3212.2
7.5°	2347.1	2369.0	2391.0	2479.8	2661.6	2887.7	3023.3	3114.5	3162.5	3205.1	3222.3
10°	2309.2	2300.4	2291.5	2332.9	2460.2	2714.8	2966.5	3090.8	3153.0	3200.4	3215.2
12.5°	2456.1	2338.3	2272.5	2273.7	2358.4	2534.8	2867.0	3057.7	3138.8	3183.8	3201.0
15°	2658.6	2602.3	2362.5	2226.3	2253.0	2365.5	2676.4	3002.0	3102.7	3144.1	3170.8
17.5°	2668.1	2642.6	2569.8	2273.7	2183.1	2257.1	2489.8	2922.1	3050.0	3099.1	3122.8
20°	2658.6	2626.0	2581.6	2392.1	2152.3	2202.7	2395.1	2862.9	3005.0	3061.2	3084.9
22.5°	2658.6	2609.4	2569.8	2458.5	2131.0	2145.8	2328.8	2782.3	2957.6	3016.2	3039.9
25°	2617.1	2584.6	2507.6	2466.2	2107.9	2075.4	2247.1	2643.8	2880.6	2931.0	2966.5
27.5°	2547.3	2530.7	2447.8	2418.2	2123.3	1993.1	2175.4	2491.6	2774.6	2846.3	2884.8
30°	2492.8	2481.0	2398.1	2380.3	2125.7	1936.2	2125.7	2380.3	2682.3	2780.0	2830.3
32.5°	2409.9	2414.6	2348.3	2323.5	2109.1	1881.7	2064.1	2254.8	2544.9	2711.3	2771.1
35°	2294.4	2297.4	2258.9	2226.3	2054.6	1782.3	1959.9	2010.2	2377.3	2614.2	2664.5
37.5°	2200.3	2187.9	2130.4	2132.8	1970.0	1684.0	1836.7	1734.9	2225.8	2511.7	2548.5
40°	2131.6	2116.8	2042.8	2066.5	1903.6	1622.4	1734.9	1569.1	2081.3	2433.6	2463.2
42.5°	2062.9	2048.1	1957.5	1986.0	1823.1	1551.3	1599.9	1445.9	1922.6	2350.7	2359.0
45°	1959.9	1945.1	1847.4	1850.4	1693.4	1441.8	1323.4	1296.7	1829.6	2217.5	2217.5
47.5°	1845.0	1832.0	1727.2	1715.9	1543.0	1322.2	1067.0	1257.7	1699.4	2074.2	2073.0
50°	1764.5	1758.6	1649.0	1628.3	1427.0	1234.6	941.5	1255.3	1604.6	1951.0	1980.6
52.5°	1676.9	1678.1	1578.0	1552.5	1325.2	1132.7	870.4	1162.9	1488.6	1792.3	1885.9
55°	1560.2	1557.3	1468.4	1435.9	1175.3	956.3	784.6	1056.9	1308.6	1572.1	1729.0
57.5°	1434.7	1427.6	1344.1	1318.6	1045.7	792.8	687.4	1022.0	1029.1	1370.7	1570.9
60°	1347.1	1335.2	1261.2	1228.6	965.1	695.7	618.8	953.3	787.5	1228.6	1447.7
62.5°	1250.0	1228.6	1178.3	1143.4	898.8	648.4	571.4	882.3	614.6	1067.6	1329.3
65°	1098.4	1083.6	1051.0	1012.5	793.4	574.4	509.2	734.2	479.6	731.3	1154.6
67.5°	933.2	924.3	905.3	862.1	689.2	516.3	451.8	530.5	364.7	464.2	988.2
70°	829.0	820.1	808.2	769.7	615.8	473.7	411.5	414.5	260.5	343.4	879.3
72.5°	712.9	711.1	704.0	665.5	540.0	428.7	378.4	357.6	220.3	270.0	768.0
75°	553.6	550.7	547.7	521.1	426.3	355.3	322.7	278.3	222.0	192.4	601.0
77.5°	397.3	395.5	396.1	379.5	315.6	274.7	245.7	194.2	198.4	146.3	450.0
80°	293.1	296.1	299.0	287.2	239.8	213.2	186.5	153.9	162.8	115.5	343.4
82.5°	207.8	213.2	209.0	206.6	175.9	156.3	132.0	113.7	115.5	91.8	255.8
85°	106.6	97.7	103.6	100.7	88.8	79.9	62.2	47.4	59.2	53.3	127.3
87.5°	28.4	33.2	33.2	35.5	33.2	28.4	18.9	11.8	21.3	26.1	52.1
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°	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3	3129.3
2.5°	3162.5	3162.5	3183.8	3188.5	3193.3	3186.2	3193.3	3188.5	3183.8	3162.5	3162.5
5°	3209.3	3209.3	3238.9	3247.7	3247.7	3241.8	3247.7	3247.7	3238.9	3209.3	3209.3
7.5°	3213.4	3218.1	3247.7	3254.3	3259.6	3250.7	3259.6	3254.3	3247.7	3218.1	3213.4
10°	3206.3	3218.1	3247.7	3256.6	3259.6	3250.7	3259.6	3256.6	3247.7	3218.1	3206.3
12.5°	3196.8	3206.3	3235.9	3242.4	3247.7	3241.2	3247.7	3242.4	3235.9	3206.3	3196.8
15°	3164.9	3176.7	3209.3	3215.2	3221.1	3212.2	3221.1	3215.2	3209.3	3176.7	3164.9
17.5°	3120.4	3135.2	3164.9	3174.3	3177.3	3166.0	3177.3	3174.3	3164.9	3135.2	3120.4
20°	3084.9	3099.7	3129.3	3141.2	3144.1	3135.2	3144.1	3141.2	3129.3	3099.7	3084.9
22.5°	3039.9	3064.2	3091.4	3096.2	3092.0	3083.1	3092.0	3096.2	3091.4	3064.2	3039.9
25°	2975.4	2996.1	3005.0	3005.0	3005.0	2996.1	3005.0	3005.0	3005.0	2996.1	2975.4
27.5°	2893.1	2903.7	2909.1	2913.8	2919.7	2913.8	2919.7	2913.8	2909.1	2903.7	2893.1
30°	2836.2	2830.3	2845.1	2857.0	2862.9	2857.0	2862.9	2857.0	2845.1	2830.3	2836.2
32.5°	2758.1	2761.6	2783.5	2790.6	2791.8	2785.9	2791.8	2790.6	2783.5	2761.6	2758.1
35°	2643.8	2658.6	2673.4	2679.3	2682.3	2673.4	2682.3	2679.3	2673.4	2658.6	2643.8
37.5°	2523.0	2549.1	2559.7	2553.2	2553.8	2544.3	2553.8	2553.2	2559.7	2549.1	2523.0
40°	2442.5	2466.2	2472.1	2463.2	2466.2	2454.3	2466.2	2463.2	2472.1	2466.2	2442.5
42.5°	2366.7	2385.6	2379.7	2368.5	2366.7	2361.9	2366.7	2368.5	2379.7	2385.6	2366.7
45°	2241.2	2250.0	2223.4	2214.5	2208.6	2202.7	2208.6	2214.5	2223.4	2250.0	2241.2
47.5°	2103.8	2091.9	2066.5	2052.9	2036.3	2025.0	2036.3	2052.9	2066.5	2091.9	2103.8
50°	2016.1	1980.6	1959.9	1927.3	1915.5	1918.4	1915.5	1927.3	1959.9	1980.6	2016.1
52.5°	1909.6	1866.9	1834.4	1806.5	1797.1	1795.3	1797.1	1806.5	1834.4	1866.9	1909.6
55°	1755.6	1690.5	1637.2	1622.4	1619.4	1625.4	1619.4	1622.4	1637.2	1690.5	1755.6
57.5°	1566.7	1502.8	1459.0	1447.1	1437.1	1427.6	1437.1	1447.1	1459.0	1502.8	1566.7
60°	1438.8	1379.6	1338.2	1326.3	1299.7	1287.8	1299.7	1326.3	1338.2	1379.6	1438.8
62.5°	1325.2	1254.1	1222.1	1198.4	1178.9	1160.0	1178.9	1198.4	1222.1	1254.1	1325.2
65°	1160.5	1077.6	1045.1	1024.4	988.8	979.9	988.8	1024.4	1045.1	1077.6	1160.5
67.5°	980.5	908.3	867.4	839.6	817.1	816.5	817.1	839.6	867.4	908.3	980.5
70°	864.5	799.4	760.9	728.3	710.5	707.6	710.5	728.3	760.9	799.4	864.5
72.5°	750.8	688.0	654.3	624.1	608.7	605.7	608.7	624.1	654.3	688.0	750.8
75°	589.2	529.9	503.3	482.6	470.7	464.8	470.7	482.6	503.3	529.9	589.2
77.5°	435.8	387.8	374.2	352.9	342.8	342.2	342.8	352.9	374.2	387.8	435.8
80°	343.4	304.9	284.2	272.4	269.4	266.5	269.4	272.4	284.2	304.9	343.4
82.5°	248.7	226.8	213.2	206.1	205.5	200.1	205.5	206.1	213.2	226.8	248.7
85°	133.2	127.3	124.3	121.4	118.4	118.4	118.4	121.4	124.3	127.3	133.2
87.5°	54.5	56.8	56.8	59.2	61.6	59.2	61.6	59.2	56.8	56.8	54.5
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-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	3129.3	3129.3	3129.3	3129.3
2.5°	3169.6	3164.9	3150.6	3150.6
5°	3212.2	3200.4	3167.8	3144.1
7.5°	3222.3	3205.1	3162.5	3114.5
10°	3215.2	3200.4	3153.0	3090.8
12.5°	3201.0	3183.8	3138.8	3057.7
15°	3170.8	3144.1	3102.7	3002.0
17.5°	3122.8	3099.1	3050.0	2922.1
20°	3084.9	3061.2	3005.0	2862.9
22.5°	3039.9	3016.2	2957.6	2782.3
25°	2966.5	2931.0	2880.6	2643.8
27.5°	2884.8	2846.3	2774.6	2491.6
30°	2830.3	2780.0	2682.3	2380.3
32.5°	2771.1	2711.3	2544.9	2254.8
35°	2664.5	2614.2	2377.3	2010.2
37.5°	2548.5	2511.7	2225.8	1734.9
40°	2463.2	2433.6	2081.3	1569.1
42.5°	2359.0	2350.7	1922.6	1445.9
45°	2217.5	2217.5	1829.6	1296.7
47.5°	2073.0	2074.2	1699.4	1257.7
50°	1980.6	1951.0	1604.6	1255.3
52.5°	1885.9	1792.3	1488.6	1162.9
55°	1729.0	1572.1	1308.6	1056.9
57.5°	1570.9	1370.7	1029.1	1022.0
60°	1447.7	1228.6	787.5	953.3
62.5°	1329.3	1067.6	614.6	882.3
65°	1154.6	731.3	479.6	734.2
67.5°	988.2	464.2	364.7	530.5
70°	879.3	343.4	260.5	414.5
72.5°	768.0	270.0	220.3	357.6
75°	601.0	192.4	222.0	278.3
77.5°	450.0	146.3	198.4	194.2
80°	343.4	115.5	162.8	153.9
82.5°	255.8	91.8	115.5	113.7
85°	127.3	53.3	59.2	47.4
87.5°	52.1	26.1	21.3	11.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)