

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-840-1D-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-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

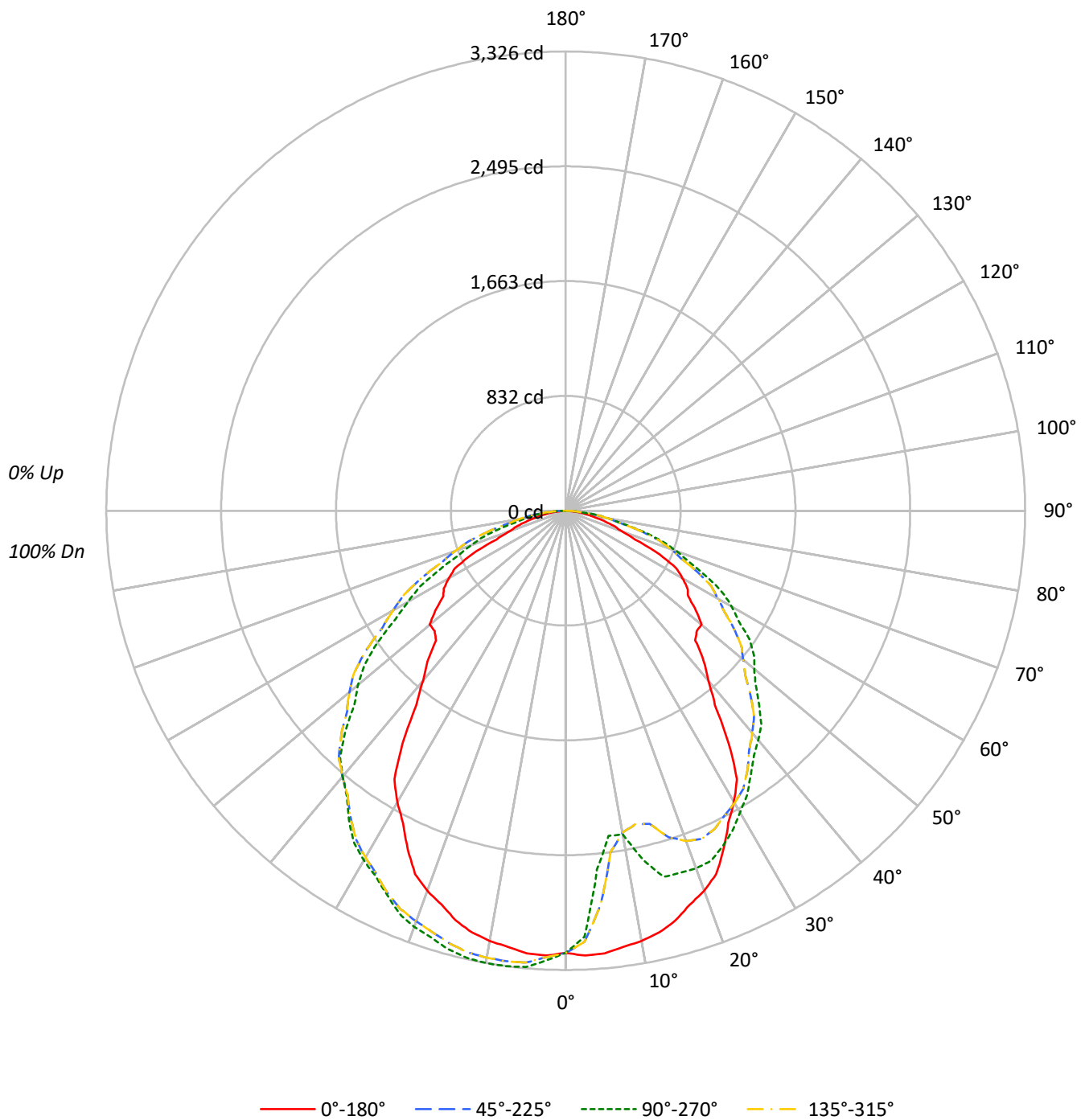
Lumens per Lamp: N/A
Luminaire Lumens: 8298.3 lumens
Efficiency: N/A
Efficacy: 104.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-075D-840-1D-UNV-STD-W-12

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°	9848	9848	9848	9848
5°	9933	8053	9933	10241
10°	9877	7427	9877	10388
15°	9781	8739	9781	10466
20°	9588	9023	9588	10500
25°	9180	9108	9180	10404
30°	8650	8962	8650	10382
35°	7723	8769	7723	10271
40°	6446	8709	6446	10083
45°	5771	8604	5771	9803
50°	6146	8523	6146	9393
55°	5799	8706	5799	8918
60°	6000	8534	6000	8106
65°	5467	8157	5467	7297
70°	3813	7655	3813	6511
75°	3384	6768	3384	5651
80°	2789	5258	2789	4830
85°	1711	3634	1711	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 10014 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-075D-840-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	288.7	3.5
10°-20°	820.4	9.9
20°-30°	1267.8	15.3
30°-40°	1514.7	18.3
40°-50°	1524.5	18.4
50°-60°	1323.6	16.0
60°-70°	936.9	11.3
70°-80°	495.6	6.0
80°-90°	126.1	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°	2376.9	28.6
0°-40°	3891.6	46.9
0°-60°	6739.7	81.2
0°-90°	8298.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8298.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3202	3202	3202	3202	3202	
5°	3217	2608	3217	3317	3217	305
15°	3072	2745	3072	3287	3072	864
25°	2705	2684	2705	3066	2705	1241
35°	2057	2336	2057	2736	2057	1270
45°	1327	1978	1327	2254	1327	1069
55°	1082	1624	1082	1663	1082	995
65°	751	1121	751	1003	751	715
75°	285	570	285	476	285	300
85°	48	103	48	121	48	69
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2
2.5°	3224.1	3199.8	3190.1	3170.7	3134.4	3115.0	3129.5	3105.3	3115.0	3088.3	3115.0
5°	3217.4	3162.9	3117.4	3041.7	2932.6	2805.4	2775.1	2696.3	2647.8	2608.4	2647.8
7.5°	3187.1	3093.8	2955.0	2723.6	2537.6	2446.7	2424.3	2401.8	2395.8	2375.8	2395.8
10°	3162.9	3035.6	2778.1	2517.6	2387.3	2344.9	2354.0	2363.1	2381.2	2378.2	2381.2
12.5°	3128.9	2933.8	2593.9	2413.3	2326.7	2325.5	2392.7	2513.3	2596.9	2591.5	2596.9
15°	3072.0	2738.7	2420.6	2305.5	2278.2	2417.6	2663.0	2720.5	2741.7	2744.8	2741.7
17.5°	2990.2	2547.9	2309.7	2234.0	2326.7	2629.7	2704.2	2730.2	2748.4	2749.6	2748.4
20°	2929.6	2450.9	2254.0	2202.5	2447.9	2641.8	2687.2	2720.5	2750.8	2756.9	2750.8
22.5°	2847.2	2383.0	2195.8	2180.7	2515.7	2629.7	2670.3	2720.5	2746.0	2744.8	2746.0
25°	2705.4	2299.4	2123.7	2157.0	2523.6	2566.0	2644.8	2678.1	2681.2	2684.2	2681.2
27.5°	2549.7	2226.1	2039.5	2172.8	2474.5	2504.8	2589.7	2606.6	2618.1	2613.3	2618.1
30°	2435.8	2175.2	1981.3	2175.2	2435.8	2453.9	2538.8	2550.9	2535.7	2523.6	2535.7
32.5°	2307.3	2112.2	1925.6	2158.3	2377.6	2403.0	2470.9	2466.1	2450.9	2441.2	2450.9
35°	2057.1	2005.6	1823.8	2102.5	2278.2	2311.6	2350.9	2347.9	2344.9	2335.8	2344.9
37.5°	1775.3	1879.5	1723.2	2015.9	2182.5	2180.1	2238.8	2251.6	2248.5	2237.0	2248.5
40°	1605.7	1775.3	1660.2	1948.0	2114.6	2090.4	2166.1	2181.3	2178.3	2169.2	2178.3
42.5°	1479.6	1637.2	1587.5	1865.6	2032.2	2003.1	2095.8	2111.0	2103.1	2096.5	2103.1
45°	1326.9	1354.2	1475.4	1732.9	1893.5	1890.4	1990.4	2005.6	1987.4	1978.3	1987.4
47.5°	1287.0	1091.9	1353.0	1579.0	1755.9	1767.4	1874.7	1888.0	1871.7	1863.8	1871.7
50°	1284.5	963.4	1263.3	1460.2	1666.3	1687.5	1799.6	1805.6	1784.4	1781.4	1784.4
52.5°	1190.0	890.7	1159.1	1356.0	1588.7	1614.8	1717.2	1715.9	1714.1	1718.4	1714.1
55°	1081.6	802.8	978.5	1202.7	1469.3	1502.7	1593.5	1596.6	1617.8	1623.8	1617.8
57.5°	1045.8	703.5	811.3	1070.0	1349.4	1375.4	1460.9	1468.1	1482.7	1482.1	1482.7
60°	975.5	633.2	711.9	987.6	1257.3	1290.6	1366.3	1378.4	1390.6	1387.5	1390.6
62.5°	902.8	584.7	663.5	919.8	1170.0	1205.8	1257.3	1279.1	1283.9	1278.5	1283.9
65°	751.3	521.1	587.7	811.9	1036.1	1075.5	1108.8	1124.0	1127.0	1120.9	1127.0
67.5°	542.9	462.3	528.4	705.3	882.2	926.4	945.8	954.9	951.9	962.8	951.9
70°	424.1	421.1	484.7	630.1	787.7	827.1	839.2	848.3	845.2	851.3	845.2
72.5°	366.0	387.2	438.7	552.6	681.0	720.4	727.7	729.5	738.6	732.5	738.6
75°	284.8	330.2	363.5	436.3	533.2	560.5	563.5	566.5	560.5	569.6	560.5
77.5°	198.7	251.5	281.1	323.0	388.4	405.4	404.7	406.6	401.7	401.1	401.7
80°	157.5	190.9	218.1	245.4	293.9	306.0	303.0	299.9	299.9	296.9	299.9
82.5°	116.3	135.1	160.0	180.0	211.5	213.9	218.1	212.7	212.7	216.9	212.7
85°	48.5	63.6	81.8	90.9	103.0	106.0	100.0	109.1	103.0	103.0	103.0
87.5°	12.1	19.4	29.1	33.9	36.4	33.9	33.9	29.1	29.1	29.1	29.1
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-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2
2.5°	3105.3	3129.5	3115.0	3134.4	3170.7	3190.1	3199.8	3224.1	3224.1	3238.6	3243.4
5°	2696.3	2775.1	2805.4	2932.6	3041.7	3117.4	3162.9	3217.4	3241.6	3274.9	3287.1
7.5°	2401.8	2424.3	2446.7	2537.6	2723.6	2955.0	3093.8	3187.1	3236.2	3279.8	3297.4
10°	2363.1	2354.0	2344.9	2387.3	2517.6	2778.1	3035.6	3162.9	3226.5	3274.9	3290.1
12.5°	2513.3	2392.7	2325.5	2326.7	2413.3	2593.9	2933.8	3128.9	3211.9	3258.0	3275.6
15°	2720.5	2663.0	2417.6	2278.2	2305.5	2420.6	2738.7	3072.0	3175.0	3217.4	3244.7
17.5°	2730.2	2704.2	2629.7	2326.7	2234.0	2309.7	2547.9	2990.2	3121.0	3171.3	3195.6
20°	2720.5	2687.2	2641.8	2447.9	2202.5	2254.0	2450.9	2929.6	3075.0	3132.6	3156.8
22.5°	2720.5	2670.3	2629.7	2515.7	2180.7	2195.8	2383.0	2847.2	3026.5	3086.5	3110.7
25°	2678.1	2644.8	2566.0	2523.6	2157.0	2123.7	2299.4	2705.4	2947.8	2999.3	3035.6
27.5°	2606.6	2589.7	2504.8	2474.5	2172.8	2039.5	2226.1	2549.7	2839.3	2912.6	2952.0
30°	2550.9	2538.8	2453.9	2435.8	2175.2	1981.3	2175.2	2435.8	2744.8	2844.8	2896.3
32.5°	2466.1	2470.9	2403.0	2377.6	2158.3	1925.6	2112.2	2307.3	2604.2	2774.5	2835.7
35°	2347.9	2350.9	2311.6	2278.2	2102.5	1823.8	2005.6	2057.1	2432.7	2675.1	2726.6
37.5°	2251.6	2238.8	2180.1	2182.5	2015.9	1723.2	1879.5	1775.3	2277.6	2570.3	2607.8
40°	2181.3	2166.1	2090.4	2114.6	1948.0	1660.2	1775.3	1605.7	2129.8	2490.3	2520.6
42.5°	2111.0	2095.8	2003.1	2032.2	1865.6	1587.5	1637.2	1479.6	1967.4	2405.5	2413.9
45°	2005.6	1990.4	1890.4	1893.5	1732.9	1475.4	1354.2	1326.9	1872.3	2269.1	2269.1
47.5°	1888.0	1874.7	1767.4	1755.9	1579.0	1353.0	1091.9	1287.0	1739.0	2122.5	2121.3
50°	1805.6	1799.6	1687.5	1666.3	1460.2	1263.3	963.4	1284.5	1642.0	1996.5	2026.8
52.5°	1715.9	1717.2	1614.8	1588.7	1356.0	1159.1	890.7	1190.0	1523.3	1834.1	1929.8
55°	1596.6	1593.5	1502.7	1469.3	1202.7	978.5	802.8	1081.6	1339.1	1608.7	1769.3
57.5°	1468.1	1460.9	1375.4	1349.4	1070.0	811.3	703.5	1045.8	1053.1	1402.7	1607.5
60°	1378.4	1366.3	1290.6	1257.3	987.6	711.9	633.2	975.5	805.9	1257.3	1481.5
62.5°	1279.1	1257.3	1205.8	1170.0	919.8	663.5	584.7	902.8	628.9	1092.5	1360.3
65°	1124.0	1108.8	1075.5	1036.1	811.9	587.7	521.1	751.3	490.8	748.3	1181.5
67.5°	954.9	945.8	926.4	882.2	705.3	528.4	462.3	542.9	373.2	475.0	1011.3
70°	848.3	839.2	827.1	787.7	630.1	484.7	421.1	424.1	266.6	351.4	899.8
72.5°	729.5	727.7	720.4	681.0	552.6	438.7	387.2	366.0	225.4	276.3	785.9
75°	566.5	563.5	560.5	533.2	436.3	363.5	330.2	284.8	227.2	196.9	615.0
77.5°	406.6	404.7	405.4	388.4	323.0	281.1	251.5	198.7	203.0	149.7	460.5
80°	299.9	303.0	306.0	293.9	245.4	218.1	190.9	157.5	166.6	118.2	351.4
82.5°	212.7	218.1	213.9	211.5	180.0	160.0	135.1	116.3	118.2	93.9	261.8
85°	109.1	100.0	106.0	103.0	90.9	81.8	63.6	48.5	60.6	54.5	130.3
87.5°	29.1	33.9	33.9	36.4	33.9	29.1	19.4	12.1	21.8	26.7	53.3
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-075D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2	3202.2
2.5°	3236.2	3236.2	3258.0	3262.8	3267.7	3260.4	3267.7	3262.8	3258.0	3236.2	3236.2
5°	3284.0	3284.0	3314.3	3323.4	3323.4	3317.4	3323.4	3323.4	3314.3	3284.0	3284.0
7.5°	3288.3	3293.1	3323.4	3330.1	3335.5	3326.5	3335.5	3330.1	3323.4	3293.1	3288.3
10°	3281.0	3293.1	3323.4	3332.5	3335.5	3326.5	3335.5	3332.5	3323.4	3293.1	3281.0
12.5°	3271.3	3281.0	3311.3	3318.0	3323.4	3316.8	3323.4	3318.0	3311.3	3281.0	3271.3
15°	3238.6	3250.7	3284.0	3290.1	3296.2	3287.1	3296.2	3290.1	3284.0	3250.7	3238.6
17.5°	3193.2	3208.3	3238.6	3248.3	3251.3	3239.8	3251.3	3248.3	3238.6	3208.3	3193.2
20°	3156.8	3171.9	3202.2	3214.4	3217.4	3208.3	3217.4	3214.4	3202.2	3171.9	3156.8
22.5°	3110.7	3135.6	3163.5	3168.3	3164.1	3155.0	3164.1	3168.3	3163.5	3135.6	3110.7
25°	3044.7	3065.9	3075.0	3075.0	3075.0	3065.9	3075.0	3075.0	3075.0	3065.9	3044.7
27.5°	2960.5	2971.4	2976.8	2981.7	2987.7	2981.7	2987.7	2981.7	2976.8	2971.4	2960.5
30°	2902.3	2896.3	2911.4	2923.5	2929.6	2923.5	2929.6	2923.5	2911.4	2896.3	2902.3
32.5°	2822.3	2826.0	2848.4	2855.7	2856.9	2850.8	2856.9	2855.7	2848.4	2826.0	2822.3
35°	2705.4	2720.5	2735.7	2741.7	2744.8	2735.7	2744.8	2741.7	2735.7	2720.5	2705.4
37.5°	2581.8	2608.4	2619.4	2612.7	2613.3	2603.6	2613.3	2612.7	2619.4	2608.4	2581.8
40°	2499.4	2523.6	2529.7	2520.6	2523.6	2511.5	2523.6	2520.6	2529.7	2523.6	2499.4
42.5°	2421.8	2441.2	2435.2	2423.6	2421.8	2417.0	2421.8	2423.6	2435.2	2441.2	2421.8
45°	2293.4	2302.5	2275.2	2266.1	2260.0	2254.0	2260.0	2266.1	2275.2	2302.5	2293.4
47.5°	2152.8	2140.7	2114.6	2100.7	2083.7	2072.2	2083.7	2100.7	2114.6	2140.7	2152.8
50°	2063.1	2026.8	2005.6	1972.2	1960.1	1963.2	1960.1	1972.2	2005.6	2026.8	2063.1
52.5°	1954.1	1910.4	1877.1	1848.6	1838.9	1837.1	1838.9	1848.6	1877.1	1910.4	1954.1
55°	1796.5	1729.9	1675.3	1660.2	1657.2	1663.2	1657.2	1660.2	1675.3	1729.9	1796.5
57.5°	1603.2	1537.8	1493.0	1480.8	1470.5	1460.9	1470.5	1480.8	1493.0	1537.8	1603.2
60°	1472.4	1411.8	1369.4	1357.2	1330.0	1317.9	1330.0	1357.2	1369.4	1411.8	1472.4
62.5°	1356.0	1283.3	1250.6	1226.4	1206.4	1187.0	1206.4	1226.4	1250.6	1283.3	1356.0
65°	1187.6	1102.8	1069.4	1048.2	1011.9	1002.8	1011.9	1048.2	1069.4	1102.8	1187.6
67.5°	1003.4	929.5	887.7	859.2	836.2	835.6	836.2	859.2	887.7	929.5	1003.4
70°	884.6	818.0	778.6	745.3	727.1	724.1	727.1	745.3	778.6	818.0	884.6
72.5°	768.3	704.1	669.5	638.6	622.9	619.8	622.9	638.6	669.5	704.1	768.3
75°	602.9	542.3	515.0	493.8	481.7	475.6	481.7	493.8	515.0	542.3	602.9
77.5°	446.0	396.9	382.9	361.1	350.8	350.2	350.8	361.1	382.9	396.9	446.0
80°	351.4	312.0	290.8	278.7	275.7	272.7	275.7	278.7	290.8	312.0	351.4
82.5°	254.5	232.1	218.1	210.9	210.3	204.8	210.3	210.9	218.1	232.1	254.5
85°	136.3	130.3	127.2	124.2	121.2	121.2	121.2	124.2	127.2	130.3	136.3
87.5°	55.7	58.2	58.2	60.6	63.0	60.6	63.0	60.6	58.2	58.2	55.7
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-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	3202.2	3202.2	3202.2	3202.2
2.5°	3243.4	3238.6	3224.1	3224.1
5°	3287.1	3274.9	3241.6	3217.4
7.5°	3297.4	3279.8	3236.2	3187.1
10°	3290.1	3274.9	3226.5	3162.9
12.5°	3275.6	3258.0	3211.9	3128.9
15°	3244.7	3217.4	3175.0	3072.0
17.5°	3195.6	3171.3	3121.0	2990.2
20°	3156.8	3132.6	3075.0	2929.6
22.5°	3110.7	3086.5	3026.5	2847.2
25°	3035.6	2999.3	2947.8	2705.4
27.5°	2952.0	2912.6	2839.3	2549.7
30°	2896.3	2844.8	2744.8	2435.8
32.5°	2835.7	2774.5	2604.2	2307.3
35°	2726.6	2675.1	2432.7	2057.1
37.5°	2607.8	2570.3	2277.6	1775.3
40°	2520.6	2490.3	2129.8	1605.7
42.5°	2413.9	2405.5	1967.4	1479.6
45°	2269.1	2269.1	1872.3	1326.9
47.5°	2121.3	2122.5	1739.0	1287.0
50°	2026.8	1996.5	1642.0	1284.5
52.5°	1929.8	1834.1	1523.3	1190.0
55°	1769.3	1608.7	1339.1	1081.6
57.5°	1607.5	1402.7	1053.1	1045.8
60°	1481.5	1257.3	805.9	975.5
62.5°	1360.3	1092.5	628.9	902.8
65°	1181.5	748.3	490.8	751.3
67.5°	1011.3	475.0	373.2	542.9
70°	899.8	351.4	266.6	424.1
72.5°	785.9	276.3	225.4	366.0
75°	615.0	196.9	227.2	284.8
77.5°	460.5	149.7	203.0	198.7
80°	351.4	118.2	166.6	157.5
82.5°	261.8	93.9	118.2	116.3
85°	130.3	54.5	60.6	48.5
87.5°	53.3	26.7	21.8	12.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)