

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-830-1D-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-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

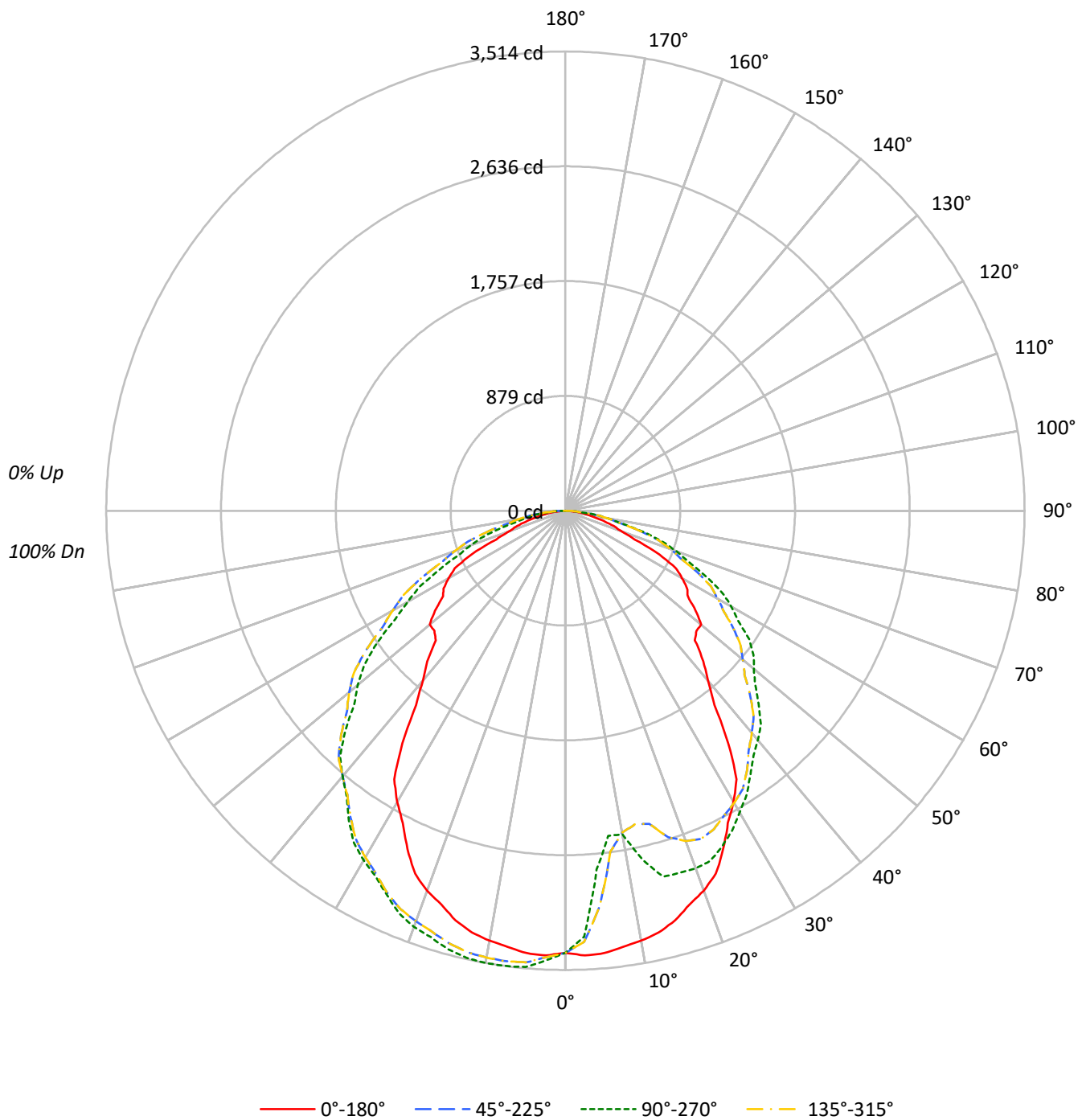
Lumens per Lamp: N/A
Luminaire Lumens: 8766.0 lumens
Efficiency: N/A
Efficacy: 96.2 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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°	15605	15605	15605	15605
5°	15738	12760	15738	16228
10°	15651	11768	15651	16461
15°	15498	13848	15498	16584
20°	15192	14297	15192	16638
25°	14547	14433	14547	16485
30°	13706	14201	13706	16451
35°	12237	13896	12237	16275
40°	10214	13799	10214	15977
45°	9145	13634	9145	15533
50°	9738	13505	9738	14883
55°	9189	13796	9189	14131
60°	9508	13523	9508	12844
65°	8664	12925	8664	11563
70°	6043	12130	6043	10317
75°	5361	10724	5361	8956
80°	4421	8331	4421	7651
85°	2710	5759	2710	6775

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 15867 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	304.9	3.5
10°-20°	866.6	9.9
20°-30°	1339.3	15.3
30°-40°	1600.1	18.3
40°-50°	1610.4	18.4
50°-60°	1398.2	16.0
60°-70°	989.7	11.3
70°-80°	523.5	6.0
80°-90°	133.2	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°	2510.8	28.6
0°-40°	4110.9	46.9
0°-60°	7119.6	81.2
0°-90°	8766.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	8766.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	3383	3383	3383	3383	3383	
5°	3399	2756	3399	3504	3399	322
15°	3245	2900	3245	3472	3245	912
25°	2858	2836	2858	3239	2858	1311
35°	2173	2468	2173	2890	2173	1342
45°	1402	2090	1402	2381	1402	1129
55°	1142	1715	1142	1757	1142	1051
65°	794	1184	794	1059	794	755
75°	301	602	301	502	301	317
85°	51	109	51	128	51	73
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°	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7
2.5°	3405.8	3380.2	3369.9	3349.5	3311.1	3290.6	3305.9	3280.3	3290.6	3262.4	3290.6
5°	3398.7	3341.1	3293.1	3213.1	3097.9	2963.5	2931.5	2848.3	2797.1	2755.5	2797.1
7.5°	3366.7	3268.2	3121.6	2877.1	2680.6	2584.6	2560.9	2537.2	2530.8	2509.7	2530.8
10°	3341.1	3206.7	2934.7	2659.5	2521.9	2477.1	2486.7	2496.3	2515.5	2512.3	2515.5
12.5°	3305.3	3099.2	2740.1	2549.4	2457.9	2456.6	2527.6	2655.0	2743.3	2737.6	2743.3
15°	3245.1	2893.1	2557.1	2435.4	2406.6	2553.9	2813.1	2873.9	2896.3	2899.5	2896.3
17.5°	3158.7	2691.5	2439.9	2359.9	2457.9	2777.9	2856.6	2884.1	2903.3	2904.6	2903.3
20°	3094.7	2589.1	2381.0	2326.6	2585.9	2790.7	2838.7	2873.9	2905.9	2912.3	2905.9
22.5°	3007.7	2517.4	2319.6	2303.6	2657.6	2777.9	2820.8	2873.9	2900.8	2899.5	2900.8
25°	2857.9	2429.0	2243.4	2278.6	2665.9	2710.7	2793.9	2829.1	2832.3	2835.5	2832.3
27.5°	2693.4	2351.6	2154.5	2295.3	2614.0	2646.0	2735.6	2753.6	2765.7	2760.6	2765.7
30°	2573.1	2297.8	2093.0	2297.8	2573.1	2592.3	2681.9	2694.7	2678.7	2665.9	2678.7
32.5°	2437.4	2231.3	2034.1	2279.9	2511.6	2538.5	2610.2	2605.1	2589.1	2578.8	2589.1
35°	2173.0	2118.6	1926.6	2221.0	2406.6	2441.8	2483.5	2480.3	2477.1	2467.5	2477.1
37.5°	1875.4	1985.5	1820.3	2129.5	2305.5	2303.0	2365.0	2378.5	2375.3	2363.1	2375.3
40°	1696.2	1875.4	1753.8	2057.8	2233.8	2208.2	2288.2	2304.2	2301.0	2291.4	2301.0
42.5°	1563.0	1729.5	1677.0	1970.8	2146.8	2116.1	2214.0	2230.0	2221.7	2214.6	2221.7
45°	1401.7	1430.5	1558.6	1830.6	2000.2	1997.0	2102.6	2118.6	2099.4	2089.8	2099.4
47.5°	1359.5	1153.4	1429.3	1668.0	1854.9	1867.1	1980.4	1994.4	1977.2	1968.8	1977.2
50°	1356.9	1017.7	1334.5	1542.6	1760.2	1782.6	1901.0	1907.4	1885.0	1881.8	1885.0
52.5°	1257.1	940.9	1224.4	1432.5	1678.3	1705.8	1813.9	1812.7	1810.7	1815.2	1810.7
55°	1142.5	848.1	1033.7	1270.5	1552.2	1587.4	1683.4	1686.6	1709.0	1715.4	1709.0
57.5°	1104.8	743.1	857.0	1130.4	1425.4	1452.9	1543.2	1550.9	1566.2	1565.6	1566.2
60°	1030.5	668.9	752.1	1043.3	1328.1	1363.3	1443.3	1456.1	1468.9	1465.7	1468.9
62.5°	953.7	617.7	700.9	971.6	1236.0	1273.7	1328.1	1351.2	1356.3	1350.5	1356.3
65°	793.7	550.5	620.9	857.7	1094.5	1136.1	1171.3	1187.3	1190.5	1184.1	1190.5
67.5°	573.5	488.4	558.1	745.0	931.9	978.7	999.1	1008.7	1005.5	1017.1	1005.5
70°	448.0	444.8	512.1	665.7	832.1	873.7	886.5	896.1	892.9	899.3	892.9
72.5°	386.6	409.0	463.4	583.7	719.4	761.0	768.7	770.6	780.2	773.8	780.2
75°	300.8	348.8	384.0	460.8	563.3	592.1	595.3	598.5	592.1	601.7	592.1
77.5°	209.9	265.6	297.0	341.2	410.3	428.2	427.6	429.5	424.4	423.7	424.4
80°	166.4	201.6	230.4	259.2	310.4	323.2	320.0	316.8	316.8	313.6	316.8
82.5°	122.9	142.7	169.0	190.1	223.4	225.9	230.4	224.7	224.7	229.1	224.7
85°	51.2	67.2	86.4	96.0	108.8	112.0	105.6	115.2	108.8	108.8	108.8
87.5°	12.8	20.5	30.7	35.8	38.4	35.8	35.8	30.7	30.7	30.7	30.7
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7
2.5°	3280.3	3305.9	3290.6	3311.1	3349.5	3369.9	3380.2	3405.8	3405.8	3421.1	3426.3
5°	2848.3	2931.5	2963.5	3097.9	3213.1	3293.1	3341.1	3398.7	3424.3	3459.6	3472.4
7.5°	2537.2	2560.9	2584.6	2680.6	2877.1	3121.6	3268.2	3366.7	3418.6	3464.7	3483.2
10°	2496.3	2486.7	2477.1	2521.9	2659.5	2934.7	3206.7	3341.1	3408.3	3459.6	3475.6
12.5°	2655.0	2527.6	2456.6	2457.9	2549.4	2740.1	3099.2	3305.3	3393.0	3441.6	3460.2
15°	2873.9	2813.1	2553.9	2406.6	2435.4	2557.1	2893.1	3245.1	3353.9	3398.7	3427.5
17.5°	2884.1	2856.6	2777.9	2457.9	2359.9	2439.9	2691.5	3158.7	3297.0	3350.1	3375.7
20°	2873.9	2838.7	2790.7	2585.9	2326.6	2381.0	2589.1	3094.7	3248.3	3309.1	3334.7
22.5°	2873.9	2820.8	2777.9	2657.6	2303.6	2319.6	2517.4	3007.7	3197.1	3260.5	3286.1
25°	2829.1	2793.9	2710.7	2665.9	2278.6	2243.4	2429.0	2857.9	3113.9	3168.3	3206.7
27.5°	2753.6	2735.6	2646.0	2614.0	2295.3	2154.5	2351.6	2693.4	2999.3	3076.8	3118.4
30°	2694.7	2681.9	2592.3	2573.1	2297.8	2093.0	2297.8	2573.1	2899.5	3005.1	3059.5
32.5°	2605.1	2610.2	2538.5	2511.6	2279.9	2034.1	2231.3	2437.4	2751.0	2930.9	2995.5
35°	2480.3	2483.5	2441.8	2406.6	2221.0	1926.6	2118.6	2173.0	2569.9	2825.9	2880.3
37.5°	2378.5	2365.0	2303.0	2305.5	2129.5	1820.3	1985.5	1875.4	2406.0	2715.2	2754.8
40°	2304.2	2288.2	2208.2	2233.8	2057.8	1753.8	1875.4	1696.2	2249.8	2630.7	2662.7
42.5°	2230.0	2214.0	2116.1	2146.8	1970.8	1677.0	1729.5	1563.0	2078.3	2541.1	2550.0
45°	2118.6	2102.6	1997.0	2000.2	1830.6	1558.6	1430.5	1401.7	1977.8	2397.0	2397.0
47.5°	1994.4	1980.4	1867.1	1854.9	1668.0	1429.3	1153.4	1359.5	1837.0	2242.1	2240.9
50°	1907.4	1901.0	1782.6	1760.2	1542.6	1334.5	1017.7	1356.9	1734.6	2109.0	2141.0
52.5°	1812.7	1813.9	1705.8	1678.3	1432.5	1224.4	940.9	1257.1	1609.1	1937.5	2038.6
55°	1686.6	1683.4	1587.4	1552.2	1270.5	1033.7	848.1	1142.5	1414.5	1699.4	1869.0
57.5°	1550.9	1543.2	1452.9	1425.4	1130.4	857.0	743.1	1104.8	1112.4	1481.8	1698.1
60°	1456.1	1443.3	1363.3	1328.1	1043.3	752.1	668.9	1030.5	851.3	1328.1	1565.0
62.5°	1351.2	1328.1	1273.7	1236.0	971.6	700.9	617.7	953.7	664.4	1154.0	1436.9
65°	1187.3	1171.3	1136.1	1094.5	857.7	620.9	550.5	793.7	518.5	790.5	1248.1
67.5°	1008.7	999.1	978.7	931.9	745.0	558.1	488.4	573.5	394.3	501.8	1068.3
70°	896.1	886.5	873.7	832.1	665.7	512.1	444.8	448.0	281.6	371.2	950.5
72.5°	770.6	768.7	761.0	719.4	583.7	463.4	409.0	386.6	238.1	291.9	830.2
75°	598.5	595.3	592.1	563.3	460.8	384.0	348.8	300.8	240.0	208.0	649.7
77.5°	429.5	427.6	428.2	410.3	341.2	297.0	265.6	209.9	214.4	158.1	486.4
80°	316.8	320.0	323.2	310.4	259.2	230.4	201.6	166.4	176.0	124.8	371.2
82.5°	224.7	230.4	225.9	223.4	190.1	169.0	142.7	122.9	124.8	99.2	276.5
85°	115.2	105.6	112.0	108.8	96.0	86.4	67.2	51.2	64.0	57.6	137.6
87.5°	30.7	35.8	35.8	38.4	35.8	30.7	20.5	12.8	23.0	28.2	56.3
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°	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7	3382.7
2.5°	3418.6	3418.6	3441.6	3446.8	3451.9	3444.2	3451.9	3446.8	3441.6	3418.6	3418.6
5°	3469.2	3469.2	3501.2	3510.8	3510.8	3504.4	3510.8	3510.8	3501.2	3469.2	3469.2
7.5°	3473.6	3478.8	3510.8	3517.8	3523.6	3514.0	3523.6	3517.8	3510.8	3478.8	3473.6
10°	3466.0	3478.8	3510.8	3520.4	3523.6	3514.0	3523.6	3520.4	3510.8	3478.8	3466.0
12.5°	3455.7	3466.0	3498.0	3505.0	3510.8	3503.7	3510.8	3505.0	3498.0	3466.0	3455.7
15°	3421.1	3434.0	3469.2	3475.6	3482.0	3472.4	3482.0	3475.6	3469.2	3434.0	3421.1
17.5°	3373.1	3389.1	3421.1	3431.4	3434.6	3422.4	3434.6	3431.4	3421.1	3389.1	3373.1
20°	3334.7	3350.7	3382.7	3395.5	3398.7	3389.1	3398.7	3395.5	3382.7	3350.7	3334.7
22.5°	3286.1	3312.3	3341.8	3346.9	3342.4	3332.8	3342.4	3346.9	3341.8	3312.3	3286.1
25°	3216.3	3238.7	3248.3	3248.3	3248.3	3238.7	3248.3	3248.3	3248.3	3238.7	3216.3
27.5°	3127.4	3138.9	3144.6	3149.8	3156.2	3149.8	3156.2	3149.8	3144.6	3138.9	3127.4
30°	3065.9	3059.5	3075.5	3088.3	3094.7	3088.3	3094.7	3088.3	3075.5	3059.5	3065.9
32.5°	2981.4	2985.3	3008.9	3016.6	3017.9	3011.5	3017.9	3016.6	3008.9	2985.3	2981.4
35°	2857.9	2873.9	2889.9	2896.3	2899.5	2889.9	2899.5	2896.3	2889.9	2873.9	2857.9
37.5°	2727.3	2755.5	2767.0	2760.0	2760.6	2750.4	2760.6	2760.0	2767.0	2755.5	2727.3
40°	2640.3	2665.9	2672.3	2662.7	2665.9	2653.1	2665.9	2662.7	2672.3	2665.9	2640.3
42.5°	2558.3	2578.8	2572.4	2560.3	2558.3	2553.2	2558.3	2560.3	2572.4	2578.8	2558.3
45°	2422.6	2432.2	2403.4	2393.8	2387.4	2381.0	2387.4	2393.8	2403.4	2432.2	2422.6
47.5°	2274.2	2261.4	2233.8	2219.1	2201.2	2189.0	2201.2	2219.1	2233.8	2261.4	2274.2
50°	2179.4	2141.0	2118.6	2083.4	2070.6	2073.8	2070.6	2083.4	2118.6	2141.0	2179.4
52.5°	2064.2	2018.1	1982.9	1952.8	1942.6	1940.7	1942.6	1952.8	1982.9	2018.1	2064.2
55°	1897.8	1827.4	1769.8	1753.8	1750.6	1757.0	1750.6	1753.8	1769.8	1827.4	1897.8
57.5°	1693.6	1624.5	1577.1	1564.3	1553.4	1543.2	1553.4	1564.3	1577.1	1624.5	1693.6
60°	1555.4	1491.4	1446.5	1433.7	1404.9	1392.1	1404.9	1433.7	1446.5	1491.4	1555.4
62.5°	1432.5	1355.7	1321.1	1295.5	1274.4	1253.9	1274.4	1295.5	1321.1	1355.7	1432.5
65°	1254.5	1164.9	1129.7	1107.3	1068.9	1059.3	1068.9	1107.3	1129.7	1164.9	1254.5
67.5°	1059.9	981.9	937.7	907.6	883.3	882.6	883.3	907.6	937.7	981.9	1059.9
70°	934.5	864.1	822.5	787.3	768.1	764.9	768.1	787.3	822.5	864.1	934.5
72.5°	811.6	743.8	707.3	674.6	658.0	654.8	658.0	674.6	707.3	743.8	811.6
75°	636.9	572.9	544.1	521.7	508.9	502.5	508.9	521.7	544.1	572.9	636.9
77.5°	471.1	419.2	404.5	381.5	370.6	370.0	370.6	381.5	404.5	419.2	471.1
80°	371.2	329.6	307.2	294.4	291.2	288.0	291.2	294.4	307.2	329.6	371.2
82.5°	268.8	245.1	230.4	222.7	222.1	216.3	222.1	222.7	230.4	245.1	268.8
85°	144.0	137.6	134.4	131.2	128.0	128.0	128.0	131.2	134.4	137.6	144.0
87.5°	58.9	61.4	61.4	64.0	66.6	64.0	66.6	64.0	61.4	61.4	58.9
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-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	3382.7	3382.7	3382.7	3382.7
2.5°	3426.3	3421.1	3405.8	3405.8
5°	3472.4	3459.6	3424.3	3398.7
7.5°	3483.2	3464.7	3418.6	3366.7
10°	3475.6	3459.6	3408.3	3341.1
12.5°	3460.2	3441.6	3393.0	3305.3
15°	3427.5	3398.7	3353.9	3245.1
17.5°	3375.7	3350.1	3297.0	3158.7
20°	3334.7	3309.1	3248.3	3094.7
22.5°	3286.1	3260.5	3197.1	3007.7
25°	3206.7	3168.3	3113.9	2857.9
27.5°	3118.4	3076.8	2999.3	2693.4
30°	3059.5	3005.1	2899.5	2573.1
32.5°	2995.5	2930.9	2751.0	2437.4
35°	2880.3	2825.9	2569.9	2173.0
37.5°	2754.8	2715.2	2406.0	1875.4
40°	2662.7	2630.7	2249.8	1696.2
42.5°	2550.0	2541.1	2078.3	1563.0
45°	2397.0	2397.0	1977.8	1401.7
47.5°	2240.9	2242.1	1837.0	1359.5
50°	2141.0	2109.0	1734.6	1356.9
52.5°	2038.6	1937.5	1609.1	1257.1
55°	1869.0	1699.4	1414.5	1142.5
57.5°	1698.1	1481.8	1112.4	1104.8
60°	1565.0	1328.1	851.3	1030.5
62.5°	1436.9	1154.0	664.4	953.7
65°	1248.1	790.5	518.5	793.7
67.5°	1068.3	501.8	394.3	573.5
70°	950.5	371.2	281.6	448.0
72.5°	830.2	291.9	238.1	386.6
75°	649.7	208.0	240.0	300.8
77.5°	486.4	158.1	214.4	209.9
80°	371.2	124.8	176.0	166.4
82.5°	276.5	99.2	124.8	122.9
85°	137.6	57.6	64.0	51.2
87.5°	56.3	28.2	23.0	12.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)