

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-840-1D-UNV-STD-W-6

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-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

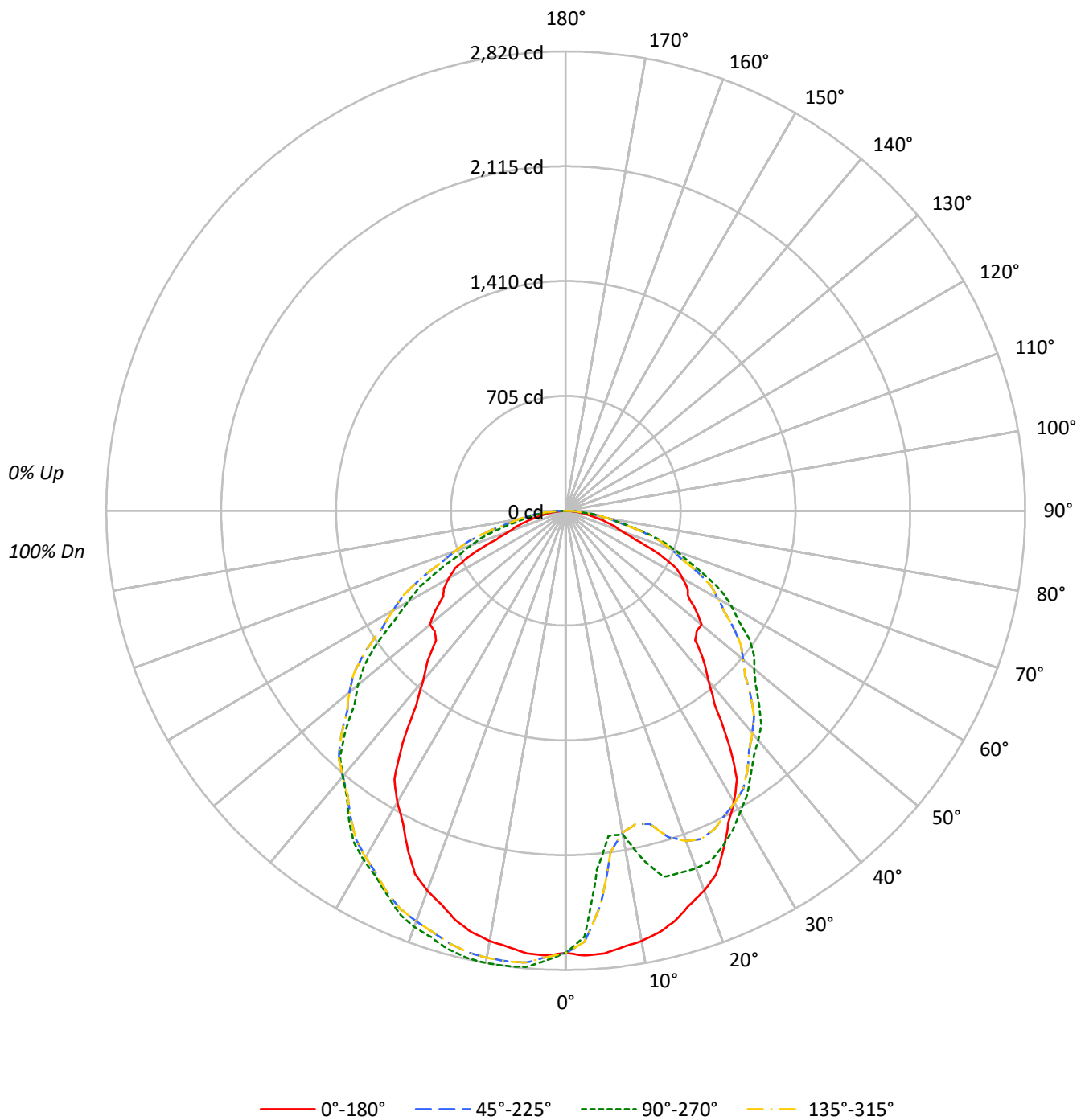
Lumens per Lamp: N/A
Luminaire Lumens: 7035.4 lumens
Efficiency: N/A
Efficacy: 100.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

Input Watts (W): 69.7
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°	16699	16699	16699	16699
5°	16842	13654	16842	17365
10°	16748	12593	16748	17614
15°	16585	14818	16585	17746
20°	16257	15299	16257	17805
25°	15567	15444	15567	17641
30°	14667	15196	14667	17604
35°	13095	14870	13095	17416
40°	10930	14767	10930	17097
45°	9786	14589	9786	16623
50°	10421	14452	10421	15927
55°	9834	14763	9834	15121
60°	10175	14472	10175	13745
65°	9271	13831	9271	12374
70°	6467	12981	6467	11040
75°	5737	11476	5737	9584
80°	4732	8915	4732	8189
85°	2901	6161	2901	7248

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 16980 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	244.7	3.5
10°-20°	695.5	9.9
20°-30°	1074.9	15.3
30°-40°	1284.2	18.3
40°-50°	1292.5	18.4
50°-60°	1122.2	16.0
60°-70°	794.4	11.3
70°-80°	420.2	6.0
80°-90°	106.9	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°	2015.1	28.6
0°-40°	3299.3	46.9
0°-60°	5714.0	81.2
0°-90°	7035.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7035.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2715	2715	2715	2715	2715	
5°	2728	2212	2728	2812	2728	259
15°	2604	2327	2604	2787	2604	732
25°	2294	2276	2294	2599	2294	1052
35°	1744	1980	1744	2319	1744	1077
45°	1125	1677	1125	1911	1125	906
55°	917	1377	917	1410	917	844
65°	637	950	637	850	637	606
75°	241	483	241	403	241	255
85°	41	87	41	103	41	59
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°	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9
2.5°	2733.4	2712.9	2704.6	2688.2	2657.4	2640.9	2653.3	2632.7	2640.9	2618.3	2640.9
5°	2727.8	2681.5	2643.0	2578.8	2486.3	2378.4	2352.8	2286.0	2244.9	2211.5	2244.9
7.5°	2702.1	2623.0	2505.3	2309.1	2151.4	2074.3	2055.3	2036.3	2031.2	2014.2	2031.2
10°	2681.5	2573.6	2355.3	2134.4	2024.0	1988.0	1995.7	2003.4	2018.8	2016.3	2018.8
12.5°	2652.8	2487.3	2199.2	2046.1	1972.6	1971.6	2028.6	2130.8	2201.7	2197.1	2201.7
15°	2604.5	2321.9	2052.2	1954.6	1931.5	2049.7	2257.7	2306.5	2324.5	2327.1	2324.5
17.5°	2535.1	2160.1	1958.2	1894.0	1972.6	2229.5	2292.7	2314.7	2330.2	2331.2	2330.2
20°	2483.7	2077.9	1911.0	1867.3	2075.4	2239.7	2278.3	2306.5	2332.2	2337.3	2332.2
22.5°	2413.9	2020.4	1861.7	1848.8	2132.9	2229.5	2263.9	2306.5	2328.1	2327.1	2328.1
25°	2293.7	1949.5	1800.5	1828.8	2139.6	2175.5	2242.3	2270.6	2273.1	2275.7	2273.1
27.5°	2161.7	1887.3	1729.1	1842.1	2098.0	2123.6	2195.6	2209.9	2219.7	2215.6	2219.7
30°	2065.1	1844.2	1679.8	1844.2	2065.1	2080.5	2152.4	2162.7	2149.8	2139.6	2149.8
32.5°	1956.2	1790.8	1632.5	1829.8	2015.8	2037.3	2094.9	2090.8	2077.9	2069.7	2077.9
35°	1744.0	1700.4	1546.2	1782.5	1931.5	1959.8	1993.2	1990.6	1988.0	1980.3	1988.0
37.5°	1505.1	1593.5	1461.0	1709.1	1850.4	1848.3	1898.1	1908.9	1906.3	1896.6	1906.3
40°	1361.3	1505.1	1407.5	1651.6	1792.8	1772.3	1836.5	1849.3	1846.8	1839.1	1846.8
42.5°	1254.5	1388.0	1345.9	1581.7	1723.0	1698.3	1776.9	1789.7	1783.1	1777.4	1783.1
45°	1125.0	1148.1	1250.9	1469.2	1605.3	1602.8	1687.5	1700.4	1684.9	1677.2	1684.9
47.5°	1091.1	925.7	1147.1	1338.7	1488.7	1498.5	1589.4	1600.7	1586.8	1580.1	1586.8
50°	1089.0	816.8	1071.1	1238.0	1412.7	1430.7	1525.7	1530.8	1512.9	1510.3	1512.9
52.5°	1008.9	755.1	982.7	1149.7	1346.9	1369.0	1455.8	1454.8	1453.3	1456.9	1453.3
55°	917.0	680.7	829.6	1019.7	1245.7	1274.0	1351.0	1353.6	1371.6	1376.7	1371.6
57.5°	886.6	596.4	687.8	907.2	1144.0	1166.1	1238.5	1244.7	1257.0	1256.5	1257.0
60°	827.1	536.8	603.6	837.3	1065.9	1094.2	1158.4	1168.7	1178.9	1176.4	1178.9
62.5°	765.4	495.7	562.5	779.8	992.0	1022.3	1065.9	1084.4	1088.5	1083.9	1088.5
65°	637.0	441.8	498.3	688.4	878.4	911.8	940.1	952.9	955.5	950.3	955.5
67.5°	460.3	392.0	447.9	597.9	748.0	785.5	801.9	809.6	807.0	816.3	807.0
70°	359.6	357.0	411.0	534.3	667.8	701.2	711.5	719.2	716.6	721.8	716.6
72.5°	310.3	328.3	371.9	468.5	577.4	610.8	617.0	618.5	626.2	621.1	626.2
75°	241.4	280.0	308.2	369.9	452.1	475.2	477.7	480.3	475.2	482.9	475.2
77.5°	168.5	213.2	238.4	273.8	329.3	343.7	343.2	344.7	340.6	340.1	340.6
80°	133.6	161.8	184.9	208.0	249.1	259.4	256.9	254.3	254.3	251.7	254.3
82.5°	98.6	114.6	135.6	152.6	179.3	181.3	184.9	180.3	180.3	183.9	180.3
85°	41.1	53.9	69.3	77.1	87.3	89.9	84.8	92.5	87.3	87.3	87.3
87.5°	10.3	16.4	24.7	28.8	30.8	28.8	28.8	24.7	24.7	24.7	24.7
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°	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9
2.5°	2632.7	2653.3	2640.9	2657.4	2688.2	2704.6	2712.9	2733.4	2733.4	2745.7	2749.8
5°	2286.0	2352.8	2378.4	2486.3	2578.8	2643.0	2681.5	2727.8	2748.3	2776.6	2786.8
7.5°	2036.3	2055.3	2074.3	2151.4	2309.1	2505.3	2623.0	2702.1	2743.7	2780.7	2795.6
10°	2003.4	1995.7	1988.0	2024.0	2134.4	2355.3	2573.6	2681.5	2735.5	2776.6	2789.4
12.5°	2130.8	2028.6	1971.6	1972.6	2046.1	2199.2	2487.3	2652.8	2723.1	2762.2	2777.1
15°	2306.5	2257.7	2049.7	1931.5	1954.6	2052.2	2321.9	2604.5	2691.8	2727.8	2750.9
17.5°	2314.7	2292.7	2229.5	1972.6	1894.0	1958.2	2160.1	2535.1	2646.1	2688.7	2709.3
20°	2306.5	2278.3	2239.7	2075.4	1867.3	1911.0	2077.9	2483.7	2607.0	2655.8	2676.4
22.5°	2306.5	2263.9	2229.5	2132.9	1848.8	1861.7	2020.4	2413.9	2565.9	2616.8	2637.3
25°	2270.6	2242.3	2175.5	2139.6	1828.8	1800.5	1949.5	2293.7	2499.2	2542.8	2573.6
27.5°	2209.9	2195.6	2123.6	2098.0	1842.1	1729.1	1887.3	2161.7	2407.2	2469.4	2502.8
30°	2162.7	2152.4	2080.5	2065.1	1844.2	1679.8	1844.2	2065.1	2327.1	2411.8	2455.5
32.5°	2090.8	2094.9	2037.3	2015.8	1829.8	1632.5	1790.8	1956.2	2207.9	2352.2	2404.1
35°	1990.6	1993.2	1959.8	1931.5	1782.5	1546.2	1700.4	1744.0	2062.5	2268.0	2311.7
37.5°	1908.9	1898.1	1848.3	1850.4	1709.1	1461.0	1593.5	1505.1	1931.0	2179.1	2211.0
40°	1849.3	1836.5	1772.3	1792.8	1651.6	1407.5	1505.1	1361.3	1805.7	2111.3	2137.0
42.5°	1789.7	1776.9	1698.3	1723.0	1581.7	1345.9	1388.0	1254.5	1668.0	2039.4	2046.6
45°	1700.4	1687.5	1602.8	1605.3	1469.2	1250.9	1148.1	1125.0	1587.3	1923.8	1923.8
47.5°	1600.7	1589.4	1498.5	1488.7	1338.7	1147.1	925.7	1091.1	1474.3	1799.5	1798.5
50°	1530.8	1525.7	1430.7	1412.7	1238.0	1071.1	816.8	1089.0	1392.1	1692.6	1718.3
52.5°	1454.8	1455.8	1369.0	1346.9	1149.7	982.7	755.1	1008.9	1291.4	1555.0	1636.1
55°	1353.6	1351.0	1274.0	1245.7	1019.7	829.6	680.7	917.0	1135.3	1363.9	1500.0
57.5°	1244.7	1238.5	1166.1	1144.0	907.2	687.8	596.4	886.6	892.8	1189.2	1362.9
60°	1168.7	1158.4	1094.2	1065.9	837.3	603.6	536.8	827.1	683.2	1065.9	1256.0
62.5°	1084.4	1065.9	1022.3	992.0	779.8	562.5	495.7	765.4	533.2	926.2	1153.3
65°	952.9	940.1	911.8	878.4	688.4	498.3	441.8	637.0	416.1	634.4	1001.7
67.5°	809.6	801.9	785.5	748.0	597.9	447.9	392.0	460.3	316.4	402.7	857.4
70°	719.2	711.5	701.2	667.8	534.3	411.0	357.0	359.6	226.0	297.9	762.8
72.5°	618.5	617.0	610.8	577.4	468.5	371.9	328.3	310.3	191.1	234.2	666.3
75°	480.3	477.7	475.2	452.1	369.9	308.2	280.0	241.4	192.6	167.0	521.4
77.5°	344.7	343.2	343.7	329.3	273.8	238.4	213.2	168.5	172.1	126.9	390.4
80°	254.3	256.9	259.4	249.1	208.0	184.9	161.8	133.6	141.3	100.2	297.9
82.5°	180.3	184.9	181.3	179.3	152.6	135.6	114.6	98.6	100.2	79.6	221.9
85°	92.5	84.8	89.9	87.3	77.1	69.3	53.9	41.1	51.4	46.2	110.4
87.5°	24.7	28.8	28.8	30.8	28.8	24.7	16.4	10.3	18.5	22.6	45.2
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°	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9	2714.9
2.5°	2743.7	2743.7	2762.2	2766.3	2770.4	2764.2	2770.4	2766.3	2762.2	2743.7	2743.7
5°	2784.3	2784.3	2810.0	2817.7	2817.7	2812.5	2817.7	2817.7	2810.0	2784.3	2784.3
7.5°	2787.9	2792.0	2817.7	2823.3	2827.9	2820.2	2827.9	2823.3	2817.7	2792.0	2787.9
10°	2781.7	2792.0	2817.7	2825.4	2827.9	2820.2	2827.9	2825.4	2817.7	2792.0	2781.7
12.5°	2773.5	2781.7	2807.4	2813.0	2817.7	2812.0	2817.7	2813.0	2807.4	2781.7	2773.5
15°	2745.7	2756.0	2784.3	2789.4	2794.5	2786.8	2794.5	2789.4	2784.3	2756.0	2745.7
17.5°	2707.2	2720.1	2745.7	2754.0	2756.5	2746.8	2756.5	2754.0	2745.7	2720.1	2707.2
20°	2676.4	2689.2	2714.9	2725.2	2727.8	2720.1	2727.8	2725.2	2714.9	2689.2	2676.4
22.5°	2637.3	2658.4	2682.0	2686.1	2682.6	2674.8	2682.6	2686.1	2682.0	2658.4	2637.3
25°	2581.4	2599.3	2607.0	2607.0	2607.0	2599.3	2607.0	2607.0	2607.0	2599.3	2581.4
27.5°	2509.9	2519.2	2523.8	2527.9	2533.1	2527.9	2533.1	2527.9	2523.8	2519.2	2509.9
30°	2460.6	2455.5	2468.3	2478.6	2483.7	2478.6	2483.7	2478.6	2468.3	2455.5	2460.6
32.5°	2392.8	2395.9	2414.9	2421.1	2422.1	2417.0	2422.1	2421.1	2414.9	2395.9	2392.8
35°	2293.7	2306.5	2319.4	2324.5	2327.1	2319.4	2327.1	2324.5	2319.4	2306.5	2293.7
37.5°	2188.9	2211.5	2220.7	2215.1	2215.6	2207.4	2215.6	2215.1	2220.7	2211.5	2188.9
40°	2119.0	2139.6	2144.7	2137.0	2139.6	2129.3	2139.6	2137.0	2144.7	2139.6	2119.0
42.5°	2053.3	2069.7	2064.6	2054.8	2053.3	2049.2	2053.3	2054.8	2064.6	2069.7	2053.3
45°	1944.4	1952.1	1929.0	1921.2	1916.1	1911.0	1916.1	1921.2	1929.0	1952.1	1944.4
47.5°	1825.2	1814.9	1792.8	1781.0	1766.6	1756.9	1766.6	1781.0	1792.8	1814.9	1825.2
50°	1749.2	1718.3	1700.4	1672.1	1661.8	1664.4	1661.8	1672.1	1700.4	1718.3	1749.2
52.5°	1656.7	1619.7	1591.4	1567.3	1559.1	1557.5	1559.1	1567.3	1591.4	1619.7	1656.7
55°	1523.1	1466.6	1420.4	1407.5	1405.0	1410.1	1405.0	1407.5	1420.4	1466.6	1523.1
57.5°	1359.3	1303.8	1265.8	1255.5	1246.8	1238.5	1246.8	1255.5	1265.8	1303.8	1359.3
60°	1248.3	1196.9	1161.0	1150.7	1127.6	1117.3	1127.6	1150.7	1161.0	1196.9	1248.3
62.5°	1149.7	1088.0	1060.3	1039.7	1022.8	1006.3	1022.8	1039.7	1060.3	1088.0	1149.7
65°	1006.9	934.9	906.7	888.7	857.9	850.2	857.9	888.7	906.7	934.9	1006.9
67.5°	850.7	788.0	752.6	728.4	708.9	708.4	708.9	728.4	752.6	788.0	850.7
70°	750.0	693.5	660.1	631.9	616.4	613.9	616.4	631.9	660.1	693.5	750.0
72.5°	651.4	596.9	567.6	541.4	528.1	525.5	528.1	541.4	567.6	596.9	651.4
75°	511.1	459.8	436.6	418.7	408.4	403.3	408.4	418.7	436.6	459.8	511.1
77.5°	378.1	336.5	324.7	306.2	297.4	296.9	297.4	306.2	324.7	336.5	378.1
80°	297.9	264.6	246.6	236.3	233.7	231.2	233.7	236.3	246.6	264.6	297.9
82.5°	215.8	196.7	184.9	178.8	178.3	173.6	178.3	178.8	184.9	196.7	215.8
85°	115.6	110.4	107.9	105.3	102.7	102.7	102.7	105.3	107.9	110.4	115.6
87.5°	47.3	49.3	49.3	51.4	53.4	51.4	53.4	51.4	49.3	49.3	47.3
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-125D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2714.9	2714.9	2714.9	2714.9
2.5°	2749.8	2745.7	2733.4	2733.4
5°	2786.8	2776.6	2748.3	2727.8
7.5°	2795.6	2780.7	2743.7	2702.1
10°	2789.4	2776.6	2735.5	2681.5
12.5°	2777.1	2762.2	2723.1	2652.8
15°	2750.9	2727.8	2691.8	2604.5
17.5°	2709.3	2688.7	2646.1	2535.1
20°	2676.4	2655.8	2607.0	2483.7
22.5°	2637.3	2616.8	2565.9	2413.9
25°	2573.6	2542.8	2499.2	2293.7
27.5°	2502.8	2469.4	2407.2	2161.7
30°	2455.5	2411.8	2327.1	2065.1
32.5°	2404.1	2352.2	2207.9	1956.2
35°	2311.7	2268.0	2062.5	1744.0
37.5°	2211.0	2179.1	1931.0	1505.1
40°	2137.0	2111.3	1805.7	1361.3
42.5°	2046.6	2039.4	1668.0	1254.5
45°	1923.8	1923.8	1587.3	1125.0
47.5°	1798.5	1799.5	1474.3	1091.1
50°	1718.3	1692.6	1392.1	1089.0
52.5°	1636.1	1555.0	1291.4	1008.9
55°	1500.0	1363.9	1135.3	917.0
57.5°	1362.9	1189.2	892.8	886.6
60°	1256.0	1065.9	683.2	827.1
62.5°	1153.3	926.2	533.2	765.4
65°	1001.7	634.4	416.1	637.0
67.5°	857.4	402.7	316.4	460.3
70°	762.8	297.9	226.0	359.6
72.5°	666.3	234.2	191.1	310.3
75°	521.4	167.0	192.6	241.4
77.5°	390.4	126.9	172.1	168.5
80°	297.9	100.2	141.3	133.6
82.5°	221.9	79.6	100.2	98.6
85°	110.4	46.2	51.4	41.1
87.5°	45.2	22.6	18.5	10.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)