

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-100D-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-100D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

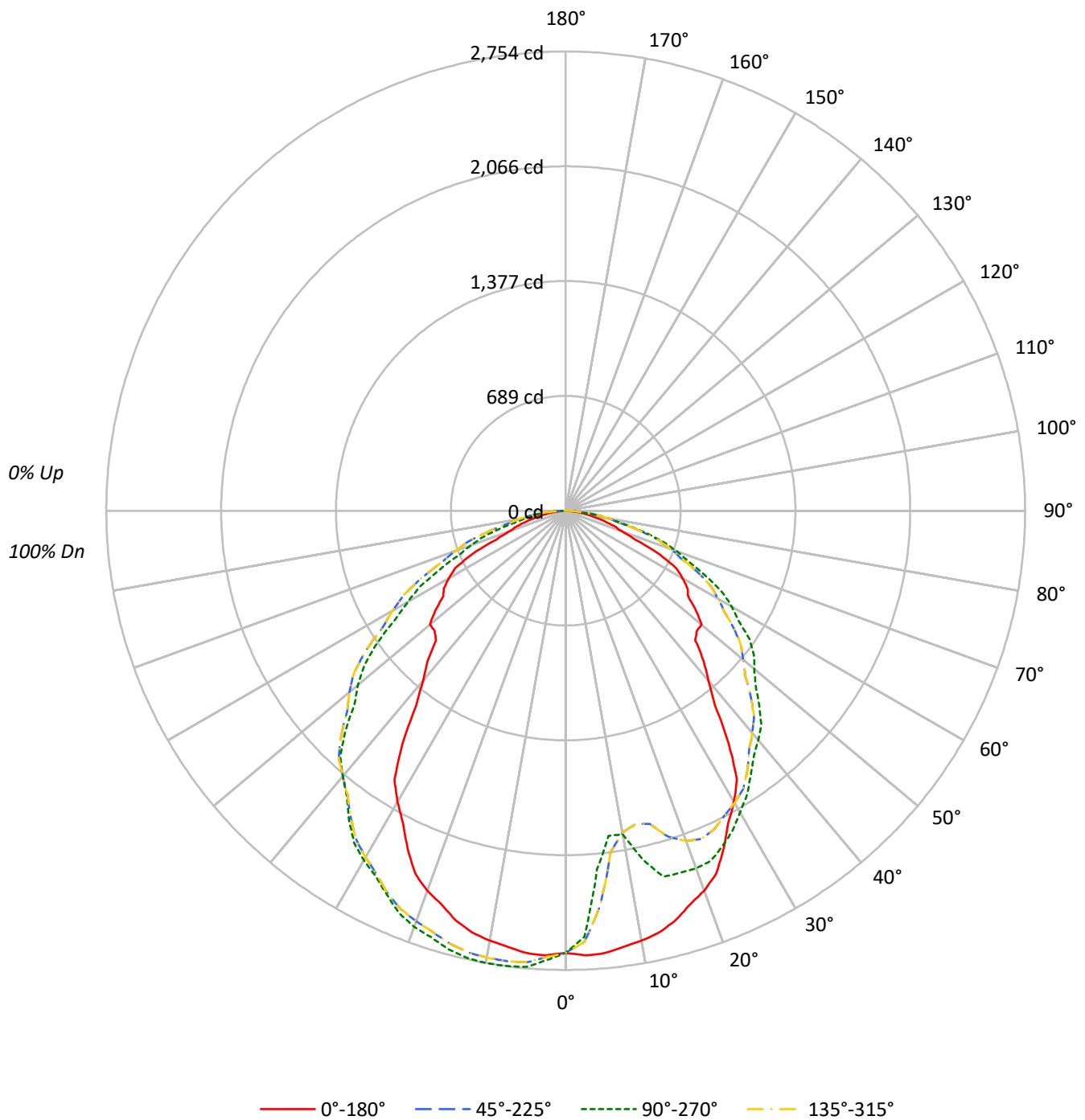
Lumens per Lamp: N/A
Luminaire Lumens: 6869.7 lumens
Efficiency: N/A
Efficacy: 95.8 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 71.7
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°	12229	12229	12229	12229
5°	12334	10000	12334	12717
10°	12265	9222	12265	12900
15°	12145	10852	12145	12996
20°	11906	11204	11906	13039
25°	11400	11310	11400	12919
30°	10741	11129	10741	12892
35°	9590	10890	9590	12754
40°	8004	10814	8004	12520
45°	7167	10684	7167	12174
50°	7632	10583	7632	11664
55°	7201	10812	7201	11074
60°	7451	10598	7451	10066
65°	6789	10130	6789	9061
70°	4736	9505	4736	8085
75°	4203	8404	4203	7019
80°	3464	6530	3464	5996
85°	2122	4515	2122	5309

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 12435 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	239.0	3.5
10°-20°	679.1	9.9
20°-30°	1049.6	15.3
30°-40°	1253.9	18.3
40°-50°	1262.1	18.4
50°-60°	1095.7	16.0
60°-70°	775.6	11.3
70°-80°	410.3	6.0
80°-90°	104.4	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°	1967.7	28.6
0°-40°	3221.6	46.9
0°-60°	5579.4	81.2
0°-90°	6869.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6869.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2651	2651	2651	2651	2651	
5°	2664	2159	2664	2746	2664	252
15°	2543	2272	2543	2721	2543	715
25°	2240	2222	2240	2538	2240	1027
35°	1703	1934	1703	2265	1703	1052
45°	1098	1638	1098	1866	1098	885
55°	895	1344	895	1377	895	824
65°	622	928	622	830	622	592
75°	236	472	236	394	236	249
85°	40	85	40	100	40	58
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°	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0
2.5°	2669.0	2648.9	2640.9	2624.9	2594.8	2578.7	2590.8	2570.7	2578.7	2556.7	2578.7
5°	2663.5	2618.4	2580.7	2518.0	2427.7	2322.4	2297.3	2232.1	2192.0	2159.4	2192.0
7.5°	2638.4	2561.2	2446.3	2254.7	2100.7	2025.5	2006.9	1988.3	1983.3	1966.8	1983.3
10°	2618.4	2513.0	2299.8	2084.1	1976.3	1941.2	1948.7	1956.2	1971.3	1968.8	1971.3
12.5°	2590.3	2428.7	2147.3	1997.9	1926.1	1925.1	1980.8	2080.6	2149.9	2145.3	2149.9
15°	2543.1	2267.2	2003.9	1908.6	1886.0	2001.4	2204.5	2252.2	2269.7	2272.2	2269.7
17.5°	2475.4	2109.2	1912.1	1849.4	1926.1	2176.9	2238.6	2260.2	2275.3	2276.3	2275.3
20°	2425.2	2029.0	1866.0	1823.3	2026.5	2187.0	2224.6	2252.2	2277.3	2282.3	2277.3
22.5°	2357.0	1972.8	1817.8	1805.3	2082.6	2176.9	2210.6	2252.2	2273.3	2272.2	2273.3
25°	2239.6	1903.6	1758.1	1785.7	2089.2	2124.3	2189.5	2217.1	2219.6	2222.1	2219.6
27.5°	2110.7	1842.9	1688.4	1798.7	2048.5	2073.6	2143.8	2157.9	2167.4	2163.4	2167.4
30°	2016.4	1800.7	1640.2	1800.7	2016.4	2031.5	2101.7	2111.7	2099.2	2089.2	2099.2
32.5°	1910.1	1748.6	1594.1	1786.7	1968.3	1989.3	2045.5	2041.5	2029.0	2020.9	2029.0
35°	1702.9	1660.3	1509.8	1740.6	1886.0	1913.6	1946.2	1943.7	1941.2	1933.7	1941.2
37.5°	1469.7	1556.0	1426.6	1668.8	1806.8	1804.8	1853.4	1863.9	1861.4	1851.9	1861.4
40°	1329.2	1469.7	1374.4	1612.6	1750.6	1730.5	1793.2	1805.8	1803.3	1795.7	1803.3
42.5°	1224.9	1355.3	1314.2	1544.4	1682.4	1658.3	1735.0	1747.6	1741.1	1735.5	1741.1
45°	1098.5	1121.1	1221.4	1434.6	1567.5	1565.0	1647.8	1660.3	1645.2	1637.7	1645.2
47.5°	1065.4	903.9	1120.1	1307.2	1453.6	1463.2	1552.0	1563.0	1549.4	1542.9	1549.4
50°	1063.4	797.5	1045.8	1208.9	1379.4	1397.0	1489.8	1494.8	1477.2	1474.7	1477.2
52.5°	985.1	737.4	959.6	1122.6	1315.2	1336.8	1421.5	1420.5	1419.0	1422.5	1419.0
55°	895.4	664.6	810.1	995.7	1216.4	1244.0	1319.2	1321.7	1339.3	1344.3	1339.3
57.5°	865.8	582.4	671.6	885.8	1117.1	1138.6	1209.4	1215.4	1227.4	1226.9	1227.4
60°	807.6	524.2	589.4	817.6	1040.8	1068.4	1131.1	1141.1	1151.2	1148.7	1151.2
62.5°	747.4	484.0	549.3	761.4	968.6	998.2	1040.8	1058.9	1062.9	1058.4	1062.9
65°	622.0	431.4	486.6	672.1	857.7	890.3	917.9	930.5	933.0	928.0	933.0
67.5°	449.4	382.7	437.4	583.9	730.3	766.9	783.0	790.5	788.0	797.0	788.0
70°	351.1	348.6	401.3	521.7	652.1	684.7	694.7	702.2	699.7	704.7	699.7
72.5°	303.0	320.5	363.2	457.5	563.8	596.4	602.4	603.9	611.5	606.4	611.5
75°	235.8	273.4	301.0	361.2	441.4	464.0	466.5	469.0	464.0	471.5	464.0
77.5°	164.5	208.2	232.7	267.4	321.5	335.6	335.1	336.6	332.6	332.1	332.6
80°	130.4	158.0	180.6	203.1	243.3	253.3	250.8	248.3	248.3	245.8	248.3
82.5°	96.3	111.9	132.4	149.0	175.1	177.1	180.6	176.1	176.1	179.6	176.1
85°	40.1	52.7	67.7	75.2	85.3	87.8	82.8	90.3	85.3	85.3	85.3
87.5°	10.0	16.1	24.1	28.1	30.1	28.1	28.1	24.1	24.1	24.1	24.1
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0
2.5°	2570.7	2590.8	2578.7	2594.8	2624.9	2640.9	2648.9	2669.0	2669.0	2681.1	2685.1
5°	2232.1	2297.3	2322.4	2427.7	2518.0	2580.7	2618.4	2663.5	2683.6	2711.1	2721.2
7.5°	1988.3	2006.9	2025.5	2100.7	2254.7	2446.3	2561.2	2638.4	2679.0	2715.2	2729.7
10°	1956.2	1948.7	1941.2	1976.3	2084.1	2299.8	2513.0	2618.4	2671.0	2711.1	2723.7
12.5°	2080.6	1980.8	1925.1	1926.1	1997.9	2147.3	2428.7	2590.3	2659.0	2697.1	2711.7
15°	2252.2	2204.5	2001.4	1886.0	1908.6	2003.9	2267.2	2543.1	2628.4	2663.5	2686.1
17.5°	2260.2	2238.6	2176.9	1926.1	1849.4	1912.1	2109.2	2475.4	2583.7	2625.4	2645.4
20°	2252.2	2224.6	2187.0	2026.5	1823.3	1866.0	2029.0	2425.2	2545.6	2593.3	2613.3
22.5°	2252.2	2210.6	2176.9	2082.6	1805.3	1817.8	1972.8	2357.0	2505.5	2555.2	2575.2
25°	2217.1	2189.5	2124.3	2089.2	1785.7	1758.1	1903.6	2239.6	2440.3	2482.9	2513.0
27.5°	2157.9	2143.8	2073.6	2048.5	1798.7	1688.4	1842.9	2110.7	2350.5	2411.2	2443.8
30°	2111.7	2101.7	2031.5	2016.4	1800.7	1640.2	1800.7	2016.4	2272.2	2355.0	2397.6
32.5°	2041.5	2045.5	1989.3	1968.3	1786.7	1594.1	1748.6	1910.1	2155.9	2296.8	2347.5
35°	1943.7	1946.2	1913.6	1886.0	1740.6	1509.8	1660.3	1702.9	2013.9	2214.6	2257.2
37.5°	1863.9	1853.4	1804.8	1806.8	1668.8	1426.6	1556.0	1469.7	1885.5	2127.8	2158.9
40°	1805.8	1793.2	1730.5	1750.6	1612.6	1374.4	1469.7	1329.2	1763.1	2061.6	2086.7
42.5°	1747.6	1735.0	1658.3	1682.4	1544.4	1314.2	1355.3	1224.9	1628.7	1991.4	1998.4
45°	1660.3	1647.8	1565.0	1567.5	1434.6	1221.4	1121.1	1098.5	1549.9	1878.5	1878.5
47.5°	1563.0	1552.0	1463.2	1453.6	1307.2	1120.1	903.9	1065.4	1439.6	1757.1	1756.1
50°	1494.8	1489.8	1397.0	1379.4	1208.9	1045.8	797.5	1063.4	1359.3	1652.8	1677.9
52.5°	1420.5	1421.5	1336.8	1315.2	1122.6	959.6	737.4	985.1	1261.0	1518.3	1597.6
55°	1321.7	1319.2	1244.0	1216.4	995.7	810.1	664.6	895.4	1108.5	1331.7	1464.7
57.5°	1215.4	1209.4	1138.6	1117.1	885.8	671.6	582.4	865.8	871.8	1161.2	1330.7
60°	1141.1	1131.1	1068.4	1040.8	817.6	589.4	524.2	807.6	667.1	1040.8	1226.4
62.5°	1058.9	1040.8	998.2	968.6	761.4	549.3	484.0	747.4	520.7	904.4	1126.1
65°	930.5	917.9	890.3	857.7	672.1	486.6	431.4	622.0	406.3	619.5	978.1
67.5°	790.5	783.0	766.9	730.3	583.9	437.4	382.7	449.4	309.0	393.3	837.2
70°	702.2	694.7	684.7	652.1	521.7	401.3	348.6	351.1	220.7	290.9	744.9
72.5°	603.9	602.4	596.4	563.8	457.5	363.2	320.5	303.0	186.6	228.7	650.6
75°	469.0	466.5	464.0	441.4	361.2	301.0	273.4	235.8	188.1	163.0	509.1
77.5°	336.6	335.1	335.6	321.5	267.4	232.7	208.2	164.5	168.0	123.9	381.2
80°	248.3	250.8	253.3	243.3	203.1	180.6	158.0	130.4	137.9	97.8	290.9
82.5°	176.1	180.6	177.1	175.1	149.0	132.4	111.9	96.3	97.8	77.7	216.7
85°	90.3	82.8	87.8	85.3	75.2	67.7	52.7	40.1	50.2	45.1	107.8
87.5°	24.1	28.1	28.1	30.1	28.1	24.1	16.1	10.0	18.1	22.1	44.1
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°	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0	2651.0
2.5°	2679.0	2679.0	2697.1	2701.1	2705.1	2699.1	2705.1	2701.1	2697.1	2679.0	2679.0
5°	2718.7	2718.7	2743.8	2751.3	2751.3	2746.3	2751.3	2751.3	2743.8	2718.7	2718.7
7.5°	2722.2	2726.2	2751.3	2756.8	2761.3	2753.8	2761.3	2756.8	2751.3	2726.2	2722.2
10°	2716.2	2726.2	2751.3	2758.8	2761.3	2753.8	2761.3	2758.8	2751.3	2726.2	2716.2
12.5°	2708.1	2716.2	2741.2	2746.8	2751.3	2745.8	2751.3	2746.8	2741.2	2716.2	2708.1
15°	2681.1	2691.1	2718.7	2723.7	2728.7	2721.2	2728.7	2723.7	2718.7	2691.1	2681.1
17.5°	2643.4	2656.0	2681.1	2689.1	2691.6	2682.1	2691.6	2689.1	2681.1	2656.0	2643.4
20°	2613.3	2625.9	2651.0	2661.0	2663.5	2656.0	2663.5	2661.0	2651.0	2625.9	2613.3
22.5°	2575.2	2595.8	2618.9	2622.9	2619.4	2611.8	2619.4	2622.9	2618.9	2595.8	2575.2
25°	2520.5	2538.1	2545.6	2545.6	2545.6	2538.1	2545.6	2545.6	2545.6	2538.1	2520.5
27.5°	2450.8	2459.8	2464.4	2468.4	2473.4	2468.4	2473.4	2468.4	2464.4	2459.8	2450.8
30°	2402.7	2397.6	2410.2	2420.2	2425.2	2420.2	2425.2	2420.2	2410.2	2397.6	2402.7
32.5°	2336.5	2339.5	2358.0	2364.0	2365.0	2360.0	2365.0	2364.0	2358.0	2339.5	2336.5
35°	2239.6	2252.2	2264.7	2269.7	2272.2	2264.7	2272.2	2269.7	2264.7	2252.2	2239.6
37.5°	2137.3	2159.4	2168.4	2162.9	2163.4	2155.4	2163.4	2162.9	2168.4	2159.4	2137.3
40°	2069.1	2089.2	2094.2	2086.7	2089.2	2079.1	2089.2	2086.7	2094.2	2089.2	2069.1
42.5°	2004.9	2020.9	2015.9	2006.4	2004.9	2000.9	2004.9	2006.4	2015.9	2020.9	2004.9
45°	1898.6	1906.1	1883.5	1876.0	1871.0	1866.0	1871.0	1876.0	1883.5	1906.1	1898.6
47.5°	1782.2	1772.2	1750.6	1739.0	1725.0	1715.5	1725.0	1739.0	1750.6	1772.2	1782.2
50°	1707.9	1677.9	1660.3	1632.7	1622.7	1625.2	1622.7	1632.7	1660.3	1677.9	1707.9
52.5°	1617.7	1581.5	1554.0	1530.4	1522.4	1520.9	1522.4	1530.4	1554.0	1581.5	1617.7
55°	1487.2	1432.1	1386.9	1374.4	1371.9	1376.9	1371.9	1374.4	1386.9	1432.1	1487.2
57.5°	1327.2	1273.1	1235.9	1225.9	1217.4	1209.4	1217.4	1225.9	1235.9	1273.1	1327.2
60°	1218.9	1168.7	1133.6	1123.6	1101.0	1091.0	1101.0	1123.6	1133.6	1168.7	1218.9
62.5°	1122.6	1062.4	1035.3	1015.2	998.7	982.6	998.7	1015.2	1035.3	1062.4	1122.6
65°	983.1	912.9	885.3	867.8	837.7	830.1	837.7	867.8	885.3	912.9	983.1
67.5°	830.6	769.5	734.8	711.3	692.2	691.7	692.2	711.3	734.8	769.5	830.6
70°	732.3	677.2	644.6	617.0	601.9	599.4	601.9	617.0	644.6	677.2	732.3
72.5°	636.0	582.9	554.3	528.7	515.6	513.1	515.6	528.7	554.3	582.9	636.0
75°	499.1	448.9	426.4	408.8	398.8	393.8	398.8	408.8	426.4	448.9	499.1
77.5°	369.2	328.5	317.0	299.0	290.4	289.9	290.4	299.0	317.0	328.5	369.2
80°	290.9	258.3	240.8	230.7	228.2	225.7	228.2	230.7	240.8	258.3	290.9
82.5°	210.7	192.1	180.6	174.6	174.1	169.5	174.1	174.6	180.6	192.1	210.7
85°	112.9	107.8	105.3	102.8	100.3	100.3	100.3	102.8	105.3	107.8	112.9
87.5°	46.1	48.2	48.2	50.2	52.2	50.2	52.2	50.2	48.2	48.2	46.1
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-100D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2651.0	2651.0	2651.0	2651.0
2.5°	2685.1	2681.1	2669.0	2669.0
5°	2721.2	2711.1	2683.6	2663.5
7.5°	2729.7	2715.2	2679.0	2638.4
10°	2723.7	2711.1	2671.0	2618.4
12.5°	2711.7	2697.1	2659.0	2590.3
15°	2686.1	2663.5	2628.4	2543.1
17.5°	2645.4	2625.4	2583.7	2475.4
20°	2613.3	2593.3	2545.6	2425.2
22.5°	2575.2	2555.2	2505.5	2357.0
25°	2513.0	2482.9	2440.3	2239.6
27.5°	2443.8	2411.2	2350.5	2110.7
30°	2397.6	2355.0	2272.2	2016.4
32.5°	2347.5	2296.8	2155.9	1910.1
35°	2257.2	2214.6	2013.9	1702.9
37.5°	2158.9	2127.8	1885.5	1469.7
40°	2086.7	2061.6	1763.1	1329.2
42.5°	1998.4	1991.4	1628.7	1224.9
45°	1878.5	1878.5	1549.9	1098.5
47.5°	1756.1	1757.1	1439.6	1065.4
50°	1677.9	1652.8	1359.3	1063.4
52.5°	1597.6	1518.3	1261.0	985.1
55°	1464.7	1331.7	1108.5	895.4
57.5°	1330.7	1161.2	871.8	865.8
60°	1226.4	1040.8	667.1	807.6
62.5°	1126.1	904.4	520.7	747.4
65°	978.1	619.5	406.3	622.0
67.5°	837.2	393.3	309.0	449.4
70°	744.9	290.9	220.7	351.1
72.5°	650.6	228.7	186.6	303.0
75°	509.1	163.0	188.1	235.8
77.5°	381.2	123.9	168.0	164.5
80°	290.9	97.8	137.9	130.4
82.5°	216.7	77.7	97.8	96.3
85°	107.8	45.1	50.2	40.1
87.5°	44.1	22.1	18.1	10.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)