

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-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-100D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

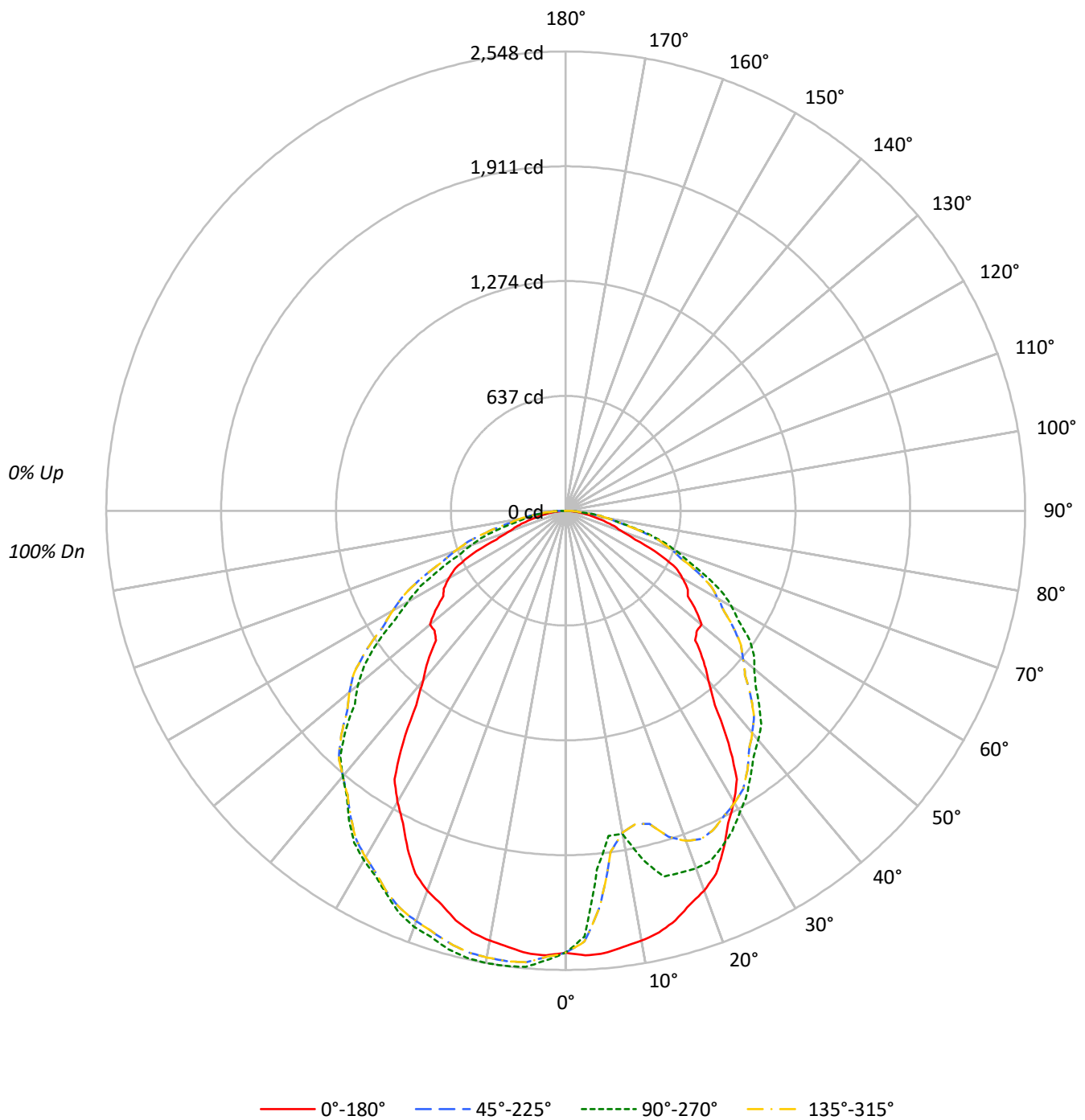
Lumens per Lamp: N/A
Luminaire Lumens: 6355.0 lumens
Efficiency: N/A
Efficacy: 88.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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				10
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°	11313	11313	11313	11313
5°	11410	9250	11410	11764
10°	11346	8531	11346	11933
15°	11236	10039	11236	12022
20°	11014	10365	11014	12062
25°	10546	10463	10546	11951
30°	9937	10295	9937	11926
35°	8872	10074	8872	11799
40°	7405	10004	7405	11583
45°	6630	9884	6630	11262
50°	7060	9790	7060	10789
55°	6662	10002	6662	10244
60°	6893	9804	6893	9311
65°	6281	9370	6281	8383
70°	4381	8794	4381	7479
75°	3887	7775	3887	6493
80°	3204	6041	3204	5547
85°	1964	4176	1964	4912

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 11504 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	221.1	3.5
10°-20°	628.3	9.9
20°-30°	970.9	15.3
30°-40°	1160.0	18.3
40°-50°	1167.5	18.4
50°-60°	1013.6	16.0
60°-70°	717.5	11.3
70°-80°	379.5	6.0
80°-90°	96.6	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°	1820.3	28.6
0°-40°	2980.3	46.9
0°-60°	5161.4	81.2
0°-90°	6355.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6355.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2452	2452	2452	2452	2452	
5°	2464	1998	2464	2540	2464	234
15°	2353	2102	2353	2517	2353	661
25°	2072	2056	2072	2348	2072	950
35°	1575	1789	1575	2095	1575	973
45°	1016	1515	1016	1726	1016	818
55°	828	1244	828	1274	828	762
65°	575	858	575	768	575	548
75°	218	436	218	364	218	230
85°	37	79	37	93	37	53
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°	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4
2.5°	2469.1	2450.5	2443.1	2428.2	2400.4	2385.5	2396.7	2378.1	2385.5	2365.1	2385.5
5°	2464.0	2422.2	2387.4	2329.4	2245.9	2148.4	2125.2	2064.9	2027.8	1997.6	2027.8
7.5°	2440.8	2369.3	2263.0	2085.8	1943.3	1873.7	1856.6	1839.4	1834.7	1819.4	1834.7
10°	2422.2	2324.8	2127.5	1928.0	1828.2	1795.8	1802.7	1809.7	1823.6	1821.3	1823.6
12.5°	2396.2	2246.8	1986.5	1848.2	1781.8	1780.9	1832.4	1924.8	1988.8	1984.6	1988.8
15°	2352.6	2097.4	1853.8	1765.6	1744.7	1851.4	2039.4	2083.5	2099.7	2102.0	2099.7
17.5°	2289.9	1951.2	1768.9	1710.9	1781.8	2013.9	2070.9	2090.9	2104.8	2105.7	2104.8
20°	2243.5	1877.0	1726.2	1686.7	1874.6	2023.1	2057.9	2083.5	2106.7	2111.3	2106.7
22.5°	2180.4	1825.0	1681.6	1670.0	1926.6	2013.9	2044.9	2083.5	2102.9	2102.0	2102.9
25°	2071.9	1761.0	1626.4	1651.9	1932.7	1965.1	2025.5	2051.0	2053.3	2055.6	2053.3
27.5°	1952.6	1704.8	1561.9	1664.0	1895.1	1918.3	1983.2	1996.2	2005.0	2001.3	2005.0
30°	1865.4	1665.8	1517.4	1665.8	1865.4	1879.3	1944.3	1953.5	1941.9	1932.7	1941.9
32.5°	1767.0	1617.6	1474.7	1652.8	1820.8	1840.3	1892.3	1888.6	1877.0	1869.5	1877.0
35°	1575.4	1535.9	1396.7	1610.2	1744.7	1770.2	1800.4	1798.1	1795.8	1788.8	1795.8
37.5°	1359.6	1439.4	1319.7	1543.8	1671.4	1669.6	1714.6	1724.3	1722.0	1713.2	1722.0
40°	1229.7	1359.6	1271.4	1491.8	1619.4	1600.9	1658.9	1670.5	1668.2	1661.2	1668.2
42.5°	1133.1	1253.8	1215.7	1428.7	1556.3	1534.1	1605.1	1616.7	1610.6	1605.5	1610.6
45°	1016.2	1037.1	1129.9	1327.1	1450.1	1447.7	1524.3	1535.9	1522.0	1515.0	1522.0
47.5°	985.6	836.2	1036.2	1209.2	1344.7	1353.6	1435.7	1445.9	1433.4	1427.3	1433.4
50°	983.7	737.8	967.5	1118.3	1276.1	1292.3	1378.1	1382.8	1366.5	1364.2	1366.5
52.5°	911.3	682.1	887.7	1038.5	1216.7	1236.6	1315.0	1314.1	1312.7	1316.0	1312.7
55°	828.3	614.8	749.4	921.1	1125.3	1150.8	1220.4	1222.7	1238.9	1243.6	1238.9
57.5°	800.9	538.7	621.3	819.5	1033.4	1053.3	1118.8	1124.3	1135.5	1135.0	1135.5
60°	747.1	484.9	545.2	756.4	962.8	988.4	1046.4	1055.7	1064.9	1062.6	1064.9
62.5°	691.4	447.8	508.1	704.4	896.0	923.4	962.8	979.6	983.3	979.1	983.3
65°	575.4	399.1	450.1	621.8	793.5	823.6	849.2	860.8	863.1	858.4	863.1
67.5°	415.8	354.0	404.6	540.1	675.6	709.5	724.3	731.3	729.0	737.3	729.0
70°	324.8	322.5	371.2	482.6	603.2	633.4	642.7	649.6	647.3	652.0	647.3
72.5°	280.3	296.5	336.0	423.2	521.6	551.7	557.3	558.7	565.6	561.0	565.6
75°	218.1	252.9	278.4	334.1	408.3	429.2	431.5	433.9	429.2	436.2	429.2
77.5°	152.2	192.6	215.3	247.3	297.4	310.4	310.0	311.4	307.6	307.2	307.6
80°	120.6	146.2	167.0	187.9	225.1	234.3	232.0	229.7	229.7	227.4	229.7
82.5°	89.1	103.5	122.5	137.8	161.9	163.8	167.0	162.9	162.9	166.1	162.9
85°	37.1	48.7	62.6	69.6	78.9	81.2	76.6	83.5	78.9	78.9	78.9
87.5°	9.3	14.8	22.3	26.0	27.8	26.0	26.0	22.3	22.3	22.3	22.3
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4
2.5°	2378.1	2396.7	2385.5	2400.4	2428.2	2443.1	2450.5	2469.1	2469.1	2480.2	2483.9
5°	2064.9	2125.2	2148.4	2245.9	2329.4	2387.4	2422.2	2464.0	2482.5	2508.0	2517.3
7.5°	1839.4	1856.6	1873.7	1943.3	2085.8	2263.0	2369.3	2440.8	2478.3	2511.8	2525.2
10°	1809.7	1802.7	1795.8	1828.2	1928.0	2127.5	2324.8	2422.2	2470.9	2508.0	2519.6
12.5°	1924.8	1832.4	1780.9	1781.8	1848.2	1986.5	2246.8	2396.2	2459.8	2495.0	2508.5
15°	2083.5	2039.4	1851.4	1744.7	1765.6	1853.8	2097.4	2352.6	2431.5	2464.0	2484.8
17.5°	2090.9	2070.9	2013.9	1781.8	1710.9	1768.9	1951.2	2289.9	2390.2	2428.7	2447.3
20°	2083.5	2057.9	2023.1	1874.6	1686.7	1726.2	1877.0	2243.5	2354.9	2399.0	2417.6
22.5°	2083.5	2044.9	2013.9	1926.6	1670.0	1681.6	1825.0	2180.4	2317.8	2363.7	2382.3
25°	2051.0	2025.5	1965.1	1932.7	1651.9	1626.4	1761.0	2071.9	2257.5	2296.9	2324.8
27.5°	1996.2	1983.2	1918.3	1895.1	1664.0	1561.9	1704.8	1952.6	2174.4	2230.6	2260.7
30°	1953.5	1944.3	1879.3	1865.4	1665.8	1517.4	1665.8	1865.4	2102.0	2178.6	2218.0
32.5°	1888.6	1892.3	1840.3	1820.8	1652.8	1474.7	1617.6	1767.0	1994.4	2124.8	2171.6
35°	1798.1	1800.4	1770.2	1744.7	1610.2	1396.7	1535.9	1575.4	1863.0	2048.7	2088.1
37.5°	1724.3	1714.6	1669.6	1671.4	1543.8	1319.7	1439.4	1359.6	1744.3	1968.4	1997.2
40°	1670.5	1658.9	1600.9	1619.4	1491.8	1271.4	1359.6	1229.7	1631.0	1907.1	1930.3
42.5°	1616.7	1605.1	1534.1	1556.3	1428.7	1215.7	1253.8	1133.1	1506.7	1842.2	1848.7
45°	1535.9	1524.3	1447.7	1450.1	1327.1	1129.9	1037.1	1016.2	1433.8	1737.8	1737.8
47.5°	1445.9	1435.7	1353.6	1344.7	1209.2	1036.2	836.2	985.6	1331.7	1625.5	1624.5
50°	1382.8	1378.1	1292.3	1276.1	1118.3	967.5	737.8	983.7	1257.5	1529.0	1552.2
52.5°	1314.1	1315.0	1236.6	1216.7	1038.5	887.7	682.1	911.3	1166.6	1404.6	1477.9
55°	1222.7	1220.4	1150.8	1125.3	921.1	749.4	614.8	828.3	1025.5	1232.0	1354.9
57.5°	1124.3	1118.8	1053.3	1033.4	819.5	621.3	538.7	800.9	806.5	1074.2	1231.1
60°	1055.7	1046.4	988.4	962.8	756.4	545.2	484.9	747.1	617.1	962.8	1134.5
62.5°	979.6	962.8	923.4	896.0	704.4	508.1	447.8	691.4	481.7	836.6	1041.7
65°	860.8	849.2	823.6	793.5	621.8	450.1	399.1	575.4	375.9	573.1	904.8
67.5°	731.3	724.3	709.5	675.6	540.1	404.6	354.0	415.8	285.8	363.8	774.5
70°	649.6	642.7	633.4	603.2	482.6	371.2	322.5	324.8	204.2	269.1	689.1
72.5°	558.7	557.3	551.7	521.6	423.2	336.0	296.5	280.3	172.6	211.6	601.8
75°	433.9	431.5	429.2	408.3	334.1	278.4	252.9	218.1	174.0	150.8	471.0
77.5°	311.4	310.0	310.4	297.4	247.3	215.3	192.6	152.2	155.4	114.6	352.7
80°	229.7	232.0	234.3	225.1	187.9	167.0	146.2	120.6	127.6	90.5	269.1
82.5°	162.9	167.0	163.8	161.9	137.8	122.5	103.5	89.1	90.5	71.9	200.5
85°	83.5	76.6	81.2	78.9	69.6	62.6	48.7	37.1	46.4	41.8	99.8
87.5°	22.3	26.0	26.0	27.8	26.0	22.3	14.8	9.3	16.7	20.4	40.8
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°	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4	2452.4
2.5°	2478.3	2478.3	2495.0	2498.8	2502.5	2496.9	2502.5	2498.8	2495.0	2478.3	2478.3
5°	2515.0	2515.0	2538.2	2545.2	2545.2	2540.5	2545.2	2545.2	2538.2	2515.0	2515.0
7.5°	2518.2	2522.0	2545.2	2550.3	2554.4	2547.5	2554.4	2550.3	2545.2	2522.0	2518.2
10°	2512.7	2522.0	2545.2	2552.1	2554.4	2547.5	2554.4	2552.1	2545.2	2522.0	2512.7
12.5°	2505.3	2512.7	2535.9	2541.0	2545.2	2540.1	2545.2	2541.0	2535.9	2512.7	2505.3
15°	2480.2	2489.5	2515.0	2519.6	2524.3	2517.3	2524.3	2519.6	2515.0	2489.5	2480.2
17.5°	2445.4	2457.0	2480.2	2487.6	2489.9	2481.1	2489.9	2487.6	2480.2	2457.0	2445.4
20°	2417.6	2429.2	2452.4	2461.6	2464.0	2457.0	2464.0	2461.6	2452.4	2429.2	2417.6
22.5°	2382.3	2401.3	2422.7	2426.4	2423.1	2416.2	2423.1	2426.4	2422.7	2401.3	2382.3
25°	2331.7	2348.0	2354.9	2354.9	2354.9	2348.0	2354.9	2354.9	2354.9	2348.0	2331.7
27.5°	2267.2	2275.6	2279.7	2283.5	2288.1	2283.5	2288.1	2283.5	2279.7	2275.6	2267.2
30°	2222.7	2218.0	2229.6	2238.9	2243.5	2238.9	2243.5	2238.9	2229.6	2218.0	2222.7
32.5°	2161.4	2164.2	2181.4	2186.9	2187.9	2183.2	2187.9	2186.9	2181.4	2164.2	2161.4
35°	2071.9	2083.5	2095.1	2099.7	2102.0	2095.1	2102.0	2099.7	2095.1	2083.5	2071.9
37.5°	1977.2	1997.6	2006.0	2000.9	2001.3	1993.9	2001.3	2000.9	2006.0	1997.6	1977.2
40°	1914.1	1932.7	1937.3	1930.3	1932.7	1923.4	1932.7	1930.3	1937.3	1932.7	1914.1
42.5°	1854.7	1869.5	1864.9	1856.1	1854.7	1851.0	1854.7	1856.1	1864.9	1869.5	1854.7
45°	1756.3	1763.3	1742.4	1735.4	1730.8	1726.2	1730.8	1735.4	1742.4	1763.3	1756.3
47.5°	1648.7	1639.4	1619.4	1608.8	1595.8	1587.0	1595.8	1608.8	1619.4	1639.4	1648.7
50°	1580.0	1552.2	1535.9	1510.4	1501.1	1503.4	1501.1	1510.4	1535.9	1552.2	1580.0
52.5°	1496.5	1463.1	1437.5	1415.7	1408.3	1406.9	1408.3	1415.7	1437.5	1463.1	1496.5
55°	1375.8	1324.8	1283.0	1271.4	1269.1	1273.7	1269.1	1271.4	1283.0	1324.8	1375.8
57.5°	1227.8	1177.7	1143.4	1134.1	1126.2	1118.8	1126.2	1134.1	1143.4	1177.7	1227.8
60°	1127.6	1081.2	1048.7	1039.4	1018.5	1009.2	1018.5	1039.4	1048.7	1081.2	1127.6
62.5°	1038.5	982.8	957.7	939.2	923.9	909.0	923.9	939.2	957.7	982.8	1038.5
65°	909.5	844.5	819.0	802.8	774.9	768.0	774.9	802.8	819.0	844.5	909.5
67.5°	768.4	711.8	679.8	658.0	640.4	639.9	640.4	658.0	679.8	711.8	768.4
70°	677.5	626.4	596.3	570.7	556.8	554.5	556.8	570.7	596.3	626.4	677.5
72.5°	588.4	539.2	512.7	489.1	477.0	474.7	477.0	489.1	512.7	539.2	588.4
75°	461.7	415.3	394.4	378.2	368.9	364.3	368.9	378.2	394.4	415.3	461.7
77.5°	341.5	303.9	293.3	276.6	268.7	268.2	268.7	276.6	293.3	303.9	341.5
80°	269.1	239.0	222.7	213.5	211.1	208.8	211.1	213.5	222.7	239.0	269.1
82.5°	194.9	177.7	167.0	161.5	161.0	156.8	161.0	161.5	167.0	177.7	194.9
85°	104.4	99.8	97.4	95.1	92.8	92.8	92.8	95.1	97.4	99.8	104.4
87.5°	42.7	44.5	44.5	46.4	48.3	46.4	48.3	46.4	44.5	44.5	42.7
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-100D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2452.4	2452.4	2452.4	2452.4
2.5°	2483.9	2480.2	2469.1	2469.1
5°	2517.3	2508.0	2482.5	2464.0
7.5°	2525.2	2511.8	2478.3	2440.8
10°	2519.6	2508.0	2470.9	2422.2
12.5°	2508.5	2495.0	2459.8	2396.2
15°	2484.8	2464.0	2431.5	2352.6
17.5°	2447.3	2428.7	2390.2	2289.9
20°	2417.6	2399.0	2354.9	2243.5
22.5°	2382.3	2363.7	2317.8	2180.4
25°	2324.8	2296.9	2257.5	2071.9
27.5°	2260.7	2230.6	2174.4	1952.6
30°	2218.0	2178.6	2102.0	1865.4
32.5°	2171.6	2124.8	1994.4	1767.0
35°	2088.1	2048.7	1863.0	1575.4
37.5°	1997.2	1968.4	1744.3	1359.6
40°	1930.3	1907.1	1631.0	1229.7
42.5°	1848.7	1842.2	1506.7	1133.1
45°	1737.8	1737.8	1433.8	1016.2
47.5°	1624.5	1625.5	1331.7	985.6
50°	1552.2	1529.0	1257.5	983.7
52.5°	1477.9	1404.6	1166.6	911.3
55°	1354.9	1232.0	1025.5	828.3
57.5°	1231.1	1074.2	806.5	800.9
60°	1134.5	962.8	617.1	747.1
62.5°	1041.7	836.6	481.7	691.4
65°	904.8	573.1	375.9	575.4
67.5°	774.5	363.8	285.8	415.8
70°	689.1	269.1	204.2	324.8
72.5°	601.8	211.6	172.6	280.3
75°	471.0	150.8	174.0	218.1
77.5°	352.7	114.6	155.4	152.2
80°	269.1	90.5	127.6	120.6
82.5°	200.5	71.9	90.5	89.1
85°	99.8	41.8	46.4	37.1
87.5°	40.8	20.4	16.7	9.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)