

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-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-075D-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

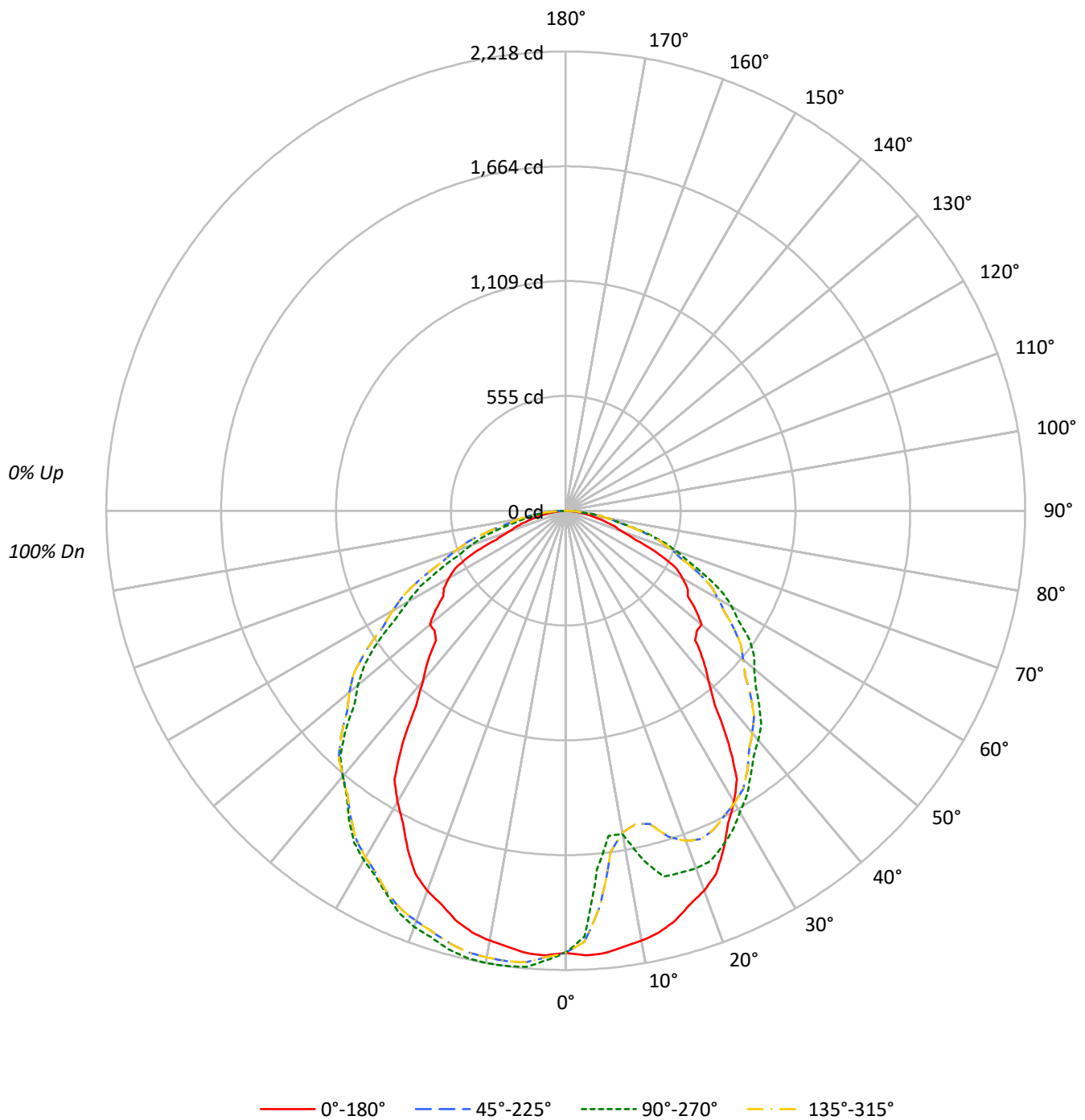
Lumens per Lamp: N/A
Luminaire Lumens: 5532.2 lumens
Efficiency: N/A
Efficacy: 101.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 54.4
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

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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°	9848	9848	9848	9848
5°	9932	8053	9932	10241
10°	9877	7427	9877	10388
15°	9781	8739	9781	10466
20°	9588	9023	9588	10500
25°	9180	9109	9180	10403
30°	8650	8962	8650	10382
35°	7723	8769	7723	10271
40°	6446	8708	6446	10083
45°	5771	8604	5771	9803
50°	6146	8523	6146	9393
55°	5799	8707	5799	8918
60°	6000	8534	6000	8106
65°	5468	8157	5468	7297
70°	3814	7654	3814	6511
75°	3385	6768	3385	5652
80°	2789	5257	2789	4830
85°	1710	3636	1710	4277

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 10014 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	192.4	3.5
10°-20°	546.9	9.9
20°-30°	845.2	15.3
30°-40°	1009.8	18.3
40°-50°	1016.3	18.4
50°-60°	882.4	16.0
60°-70°	624.6	11.3
70°-80°	330.4	6.0
80°-90°	84.1	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°	1584.6	28.6
0°-40°	2594.4	46.9
0°-60°	4493.1	81.2
0°-90°	5532.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5532.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2135	2135	2135	2135	2135	
5°	2145	1739	2145	2212	2145	203
15°	2048	1830	2048	2191	2048	576
25°	1804	1790	1804	2044	1804	827
35°	1371	1557	1371	1824	1371	847
45°	885	1319	885	1503	885	712
55°	721	1083	721	1109	721	663
65°	501	747	501	668	501	477
75°	190	380	190	317	190	200
85°	32	69	32	81	32	46
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°	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8
2.5°	2149.4	2133.2	2126.7	2113.8	2089.6	2076.7	2086.4	2070.2	2076.7	2058.9	2076.7
5°	2144.9	2108.6	2078.3	2027.8	1955.1	1870.2	1850.0	1797.5	1765.2	1739.0	1765.2
7.5°	2124.7	2062.5	1970.0	1815.7	1691.7	1631.1	1616.2	1601.2	1597.2	1583.9	1597.2
10°	2108.6	2023.7	1852.1	1678.4	1591.5	1563.3	1569.3	1575.4	1587.5	1585.5	1587.5
12.5°	2086.0	1955.9	1729.3	1608.9	1551.1	1550.3	1595.2	1675.5	1731.3	1727.7	1731.3
15°	2048.0	1825.8	1613.7	1537.0	1518.8	1611.7	1775.3	1813.7	1827.8	1829.9	1827.8
17.5°	1993.4	1698.6	1539.8	1489.3	1551.1	1753.1	1802.8	1820.2	1832.3	1833.1	1832.3
20°	1953.1	1633.9	1502.7	1468.3	1631.9	1761.2	1791.5	1813.7	1833.9	1837.9	1833.9
22.5°	1898.1	1588.7	1463.9	1453.8	1677.2	1753.1	1780.2	1813.7	1830.7	1829.9	1830.7
25°	1803.6	1533.0	1415.8	1438.0	1682.4	1710.7	1763.2	1785.4	1787.4	1789.5	1787.4
27.5°	1699.8	1484.1	1359.7	1448.5	1649.7	1669.9	1726.4	1737.8	1745.4	1742.2	1745.4
30°	1623.8	1450.1	1320.9	1450.1	1623.8	1636.0	1692.5	1700.6	1690.5	1682.4	1690.5
32.5°	1538.2	1408.1	1283.7	1438.8	1585.1	1602.0	1647.3	1644.0	1633.9	1627.5	1633.9
35°	1371.4	1337.0	1215.9	1401.7	1518.8	1541.0	1567.3	1565.3	1563.3	1557.2	1563.3
37.5°	1183.5	1253.0	1148.8	1343.9	1455.0	1453.4	1492.6	1501.0	1499.0	1491.3	1499.0
40°	1070.4	1183.5	1106.8	1298.7	1409.8	1393.6	1444.1	1454.2	1452.2	1446.1	1452.2
42.5°	986.4	1091.4	1058.3	1243.7	1354.8	1335.4	1397.2	1407.3	1402.1	1397.6	1402.1
45°	884.6	902.8	983.6	1155.3	1262.3	1260.3	1326.9	1337.0	1324.9	1318.9	1324.9
47.5°	858.0	727.9	902.0	1052.7	1170.6	1178.3	1249.8	1258.7	1247.8	1242.5	1247.8
50°	856.4	642.3	842.2	973.5	1110.8	1125.0	1199.7	1203.7	1189.6	1187.6	1189.6
52.5°	793.3	593.8	772.7	904.0	1059.1	1076.5	1144.8	1144.0	1142.7	1145.6	1142.7
55°	721.0	535.2	652.4	801.8	979.6	1001.8	1062.4	1064.4	1078.5	1082.6	1078.5
57.5°	697.2	469.0	540.9	713.4	899.6	916.9	973.9	978.7	988.4	988.0	988.4
60°	650.3	422.1	474.6	658.4	838.2	860.4	910.9	919.0	927.0	925.0	927.0
62.5°	601.9	389.8	442.3	613.2	780.0	803.8	838.2	852.7	856.0	852.3	856.0
65°	500.9	347.4	391.8	541.3	690.7	717.0	739.2	749.3	751.3	747.3	751.3
67.5°	361.9	308.2	352.2	470.2	588.1	617.6	630.6	636.6	634.6	641.9	634.6
70°	282.8	280.7	323.2	420.1	525.1	551.4	559.5	565.5	563.5	567.5	563.5
72.5°	244.0	258.1	292.5	368.4	454.0	480.3	485.1	486.3	492.4	488.4	492.4
75°	189.9	220.1	242.4	290.8	355.5	373.6	375.7	377.7	373.6	379.7	373.6
77.5°	132.5	167.6	187.4	215.3	258.9	270.2	269.8	271.0	267.8	267.4	267.8
80°	105.0	127.2	145.4	163.6	195.9	204.0	202.0	200.0	200.0	197.9	200.0
82.5°	77.6	90.1	106.6	120.0	141.0	142.6	145.4	141.8	141.8	144.6	141.8
85°	32.3	42.4	54.5	60.6	68.7	70.7	66.7	72.7	68.7	68.7	68.7
87.5°	8.1	12.9	19.4	22.6	24.2	22.6	22.6	19.4	19.4	19.4	19.4
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°	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8
2.5°	2070.2	2086.4	2076.7	2089.6	2113.8	2126.7	2133.2	2149.4	2149.4	2159.1	2162.3
5°	1797.5	1850.0	1870.2	1955.1	2027.8	2078.3	2108.6	2144.9	2161.1	2183.3	2191.4
7.5°	1601.2	1616.2	1631.1	1691.7	1815.7	1970.0	2062.5	2124.7	2157.4	2186.5	2198.2
10°	1575.4	1569.3	1563.3	1591.5	1678.4	1852.1	2023.7	2108.6	2151.0	2183.3	2193.4
12.5°	1675.5	1595.2	1550.3	1551.1	1608.9	1729.3	1955.9	2086.0	2141.3	2172.0	2183.7
15°	1813.7	1775.3	1611.7	1518.8	1537.0	1613.7	1825.8	2048.0	2116.6	2144.9	2163.1
17.5°	1820.2	1802.8	1753.1	1551.1	1489.3	1539.8	1698.6	1993.4	2080.7	2114.2	2130.4
20°	1813.7	1791.5	1761.2	1631.9	1468.3	1502.7	1633.9	1953.1	2050.0	2088.4	2104.5
22.5°	1813.7	1780.2	1753.1	1677.2	1453.8	1463.9	1588.7	1898.1	2017.7	2057.7	2073.8
25°	1785.4	1763.2	1710.7	1682.4	1438.0	1415.8	1533.0	1803.6	1965.2	1999.5	2023.7
27.5°	1737.8	1726.4	1669.9	1649.7	1448.5	1359.7	1484.1	1699.8	1892.9	1941.7	1968.0
30°	1700.6	1692.5	1636.0	1623.8	1450.1	1320.9	1450.1	1623.8	1829.9	1896.5	1930.8
32.5°	1644.0	1647.3	1602.0	1585.1	1438.8	1283.7	1408.1	1538.2	1736.1	1849.6	1890.4
35°	1565.3	1567.3	1541.0	1518.8	1401.7	1215.9	1337.0	1371.4	1621.8	1783.4	1817.7
37.5°	1501.0	1492.6	1453.4	1455.0	1343.9	1148.8	1253.0	1183.5	1518.4	1713.5	1738.6
40°	1454.2	1444.1	1393.6	1409.8	1298.7	1106.8	1183.5	1070.4	1419.9	1660.2	1680.4
42.5°	1407.3	1397.2	1335.4	1354.8	1243.7	1058.3	1091.4	986.4	1311.6	1603.6	1609.3
45°	1337.0	1326.9	1260.3	1262.3	1155.3	983.6	902.8	884.6	1248.2	1512.8	1512.8
47.5°	1258.7	1249.8	1178.3	1170.6	1052.7	902.0	727.9	858.0	1159.3	1415.0	1414.2
50°	1203.7	1199.7	1125.0	1110.8	973.5	842.2	642.3	856.4	1094.7	1331.0	1351.2
52.5°	1144.0	1144.8	1076.5	1059.1	904.0	772.7	593.8	793.3	1015.5	1222.7	1286.6
55°	1064.4	1062.4	1001.8	979.6	801.8	652.4	535.2	721.0	892.7	1072.5	1179.5
57.5°	978.7	973.9	916.9	899.6	713.4	540.9	469.0	697.2	702.0	935.1	1071.7
60°	919.0	910.9	860.4	838.2	658.4	474.6	422.1	650.3	537.2	838.2	987.6
62.5°	852.7	838.2	803.8	780.0	613.2	442.3	389.8	601.9	419.3	728.3	906.8
65°	749.3	739.2	717.0	690.7	541.3	391.8	347.4	500.9	327.2	498.9	787.7
67.5°	636.6	630.6	617.6	588.1	470.2	352.2	308.2	361.9	248.8	316.7	674.2
70°	565.5	559.5	551.4	525.1	420.1	323.2	280.7	282.8	177.7	234.3	599.9
72.5°	486.3	485.1	480.3	454.0	368.4	292.5	258.1	244.0	150.3	184.2	523.9
75°	377.7	375.7	373.6	355.5	290.8	242.4	220.1	189.9	151.5	131.3	410.0
77.5°	271.0	269.8	270.2	258.9	215.3	187.4	167.6	132.5	135.3	99.8	307.0
80°	200.0	202.0	204.0	195.9	163.6	145.4	127.2	105.0	111.1	78.8	234.3
82.5°	141.8	145.4	142.6	141.0	120.0	106.6	90.1	77.6	78.8	62.6	174.5
85°	72.7	66.7	70.7	68.7	60.6	54.5	42.4	32.3	40.4	36.4	86.8
87.5°	19.4	22.6	22.6	24.2	22.6	19.4	12.9	8.1	14.5	17.8	35.5
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°	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8	2134.8
2.5°	2157.4	2157.4	2172.0	2175.2	2178.5	2173.6	2178.5	2175.2	2172.0	2157.4	2157.4
5°	2189.4	2189.4	2209.6	2215.6	2215.6	2211.6	2215.6	2215.6	2209.6	2189.4	2189.4
7.5°	2192.2	2195.4	2215.6	2220.1	2223.7	2217.6	2223.7	2220.1	2215.6	2195.4	2192.2
10°	2187.3	2195.4	2215.6	2221.7	2223.7	2217.6	2223.7	2221.7	2215.6	2195.4	2187.3
12.5°	2180.9	2187.3	2207.5	2212.0	2215.6	2211.2	2215.6	2212.0	2207.5	2187.3	2180.9
15°	2159.1	2167.1	2189.4	2193.4	2197.4	2191.4	2197.4	2193.4	2189.4	2167.1	2159.1
17.5°	2128.8	2138.9	2159.1	2165.5	2167.5	2159.9	2167.5	2165.5	2159.1	2138.9	2128.8
20°	2104.5	2114.6	2134.8	2142.9	2144.9	2138.9	2144.9	2142.9	2134.8	2114.6	2104.5
22.5°	2073.8	2090.4	2109.0	2112.2	2109.4	2103.3	2109.4	2112.2	2109.0	2090.4	2073.8
25°	2029.8	2043.9	2050.0	2050.0	2050.0	2043.9	2050.0	2050.0	2050.0	2043.9	2029.8
27.5°	1973.7	1980.9	1984.6	1987.8	1991.8	1987.8	1991.8	1987.8	1984.6	1980.9	1973.7
30°	1934.9	1930.8	1940.9	1949.0	1953.1	1949.0	1953.1	1949.0	1940.9	1930.8	1934.9
32.5°	1881.6	1884.0	1898.9	1903.8	1904.6	1900.5	1904.6	1903.8	1898.9	1884.0	1881.6
35°	1803.6	1813.7	1823.8	1827.8	1829.9	1823.8	1829.9	1827.8	1823.8	1813.7	1803.6
37.5°	1721.2	1739.0	1746.2	1741.8	1742.2	1735.7	1742.2	1741.8	1746.2	1739.0	1721.2
40°	1666.3	1682.4	1686.5	1680.4	1682.4	1674.3	1682.4	1680.4	1686.5	1682.4	1666.3
42.5°	1614.6	1627.5	1623.4	1615.8	1614.6	1611.3	1614.6	1615.8	1623.4	1627.5	1614.6
45°	1528.9	1535.0	1516.8	1510.7	1506.7	1502.7	1506.7	1510.7	1516.8	1535.0	1528.9
47.5°	1435.2	1427.1	1409.8	1400.5	1389.2	1381.5	1389.2	1400.5	1409.8	1427.1	1435.2
50°	1375.4	1351.2	1337.0	1314.8	1306.7	1308.8	1306.7	1314.8	1337.0	1351.2	1375.4
52.5°	1302.7	1273.6	1251.4	1232.4	1226.0	1224.7	1226.0	1232.4	1251.4	1273.6	1302.7
55°	1197.7	1153.3	1116.9	1106.8	1104.8	1108.8	1104.8	1106.8	1116.9	1153.3	1197.7
57.5°	1068.8	1025.2	995.3	987.2	980.4	973.9	980.4	987.2	995.3	1025.2	1068.8
60°	981.6	941.2	912.9	904.8	886.6	878.6	886.6	904.8	912.9	941.2	981.6
62.5°	904.0	855.5	833.7	817.6	804.2	791.3	804.2	817.6	833.7	855.5	904.0
65°	791.7	735.2	713.0	698.8	674.6	668.5	674.6	698.8	713.0	735.2	791.7
67.5°	668.9	619.6	591.8	572.8	557.4	557.0	557.4	572.8	591.8	619.6	668.9
70°	589.8	545.3	519.1	496.8	484.7	482.7	484.7	496.8	519.1	545.3	589.8
72.5°	512.2	469.4	446.4	425.8	415.3	413.2	415.3	425.8	446.4	469.4	512.2
75°	401.9	361.5	343.3	329.2	321.1	317.1	321.1	329.2	343.3	361.5	401.9
77.5°	297.3	264.6	255.3	240.7	233.9	233.5	233.9	240.7	255.3	264.6	297.3
80°	234.3	208.0	193.9	185.8	183.8	181.8	183.8	185.8	193.9	208.0	234.3
82.5°	169.7	154.7	145.4	140.6	140.2	136.5	140.2	140.6	145.4	154.7	169.7
85°	90.9	86.8	84.8	82.8	80.8	80.8	80.8	82.8	84.8	86.8	90.9
87.5°	37.2	38.8	38.8	40.4	42.0	40.4	42.0	40.4	38.8	38.8	37.2
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-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2134.8	2134.8	2134.8	2134.8
2.5°	2162.3	2159.1	2149.4	2149.4
5°	2191.4	2183.3	2161.1	2144.9
7.5°	2198.2	2186.5	2157.4	2124.7
10°	2193.4	2183.3	2151.0	2108.6
12.5°	2183.7	2172.0	2141.3	2086.0
15°	2163.1	2144.9	2116.6	2048.0
17.5°	2130.4	2114.2	2080.7	1993.4
20°	2104.5	2088.4	2050.0	1953.1
22.5°	2073.8	2057.7	2017.7	1898.1
25°	2023.7	1999.5	1965.2	1803.6
27.5°	1968.0	1941.7	1892.9	1699.8
30°	1930.8	1896.5	1829.9	1623.8
32.5°	1890.4	1849.6	1736.1	1538.2
35°	1817.7	1783.4	1621.8	1371.4
37.5°	1738.6	1713.5	1518.4	1183.5
40°	1680.4	1660.2	1419.9	1070.4
42.5°	1609.3	1603.6	1311.6	986.4
45°	1512.8	1512.8	1248.2	884.6
47.5°	1414.2	1415.0	1159.3	858.0
50°	1351.2	1331.0	1094.7	856.4
52.5°	1286.6	1222.7	1015.5	793.3
55°	1179.5	1072.5	892.7	721.0
57.5°	1071.7	935.1	702.0	697.2
60°	987.6	838.2	537.2	650.3
62.5°	906.8	728.3	419.3	601.9
65°	787.7	498.9	327.2	500.9
67.5°	674.2	316.7	248.8	361.9
70°	599.9	234.3	177.7	282.8
72.5°	523.9	184.2	150.3	244.0
75°	410.0	131.3	151.5	189.9
77.5°	307.0	99.8	135.3	132.5
80°	234.3	78.8	111.1	105.0
82.5°	174.5	62.6	78.8	77.6
85°	86.8	36.4	40.4	32.3
87.5°	35.5	17.8	14.5	8.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)