

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-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-100D-940-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

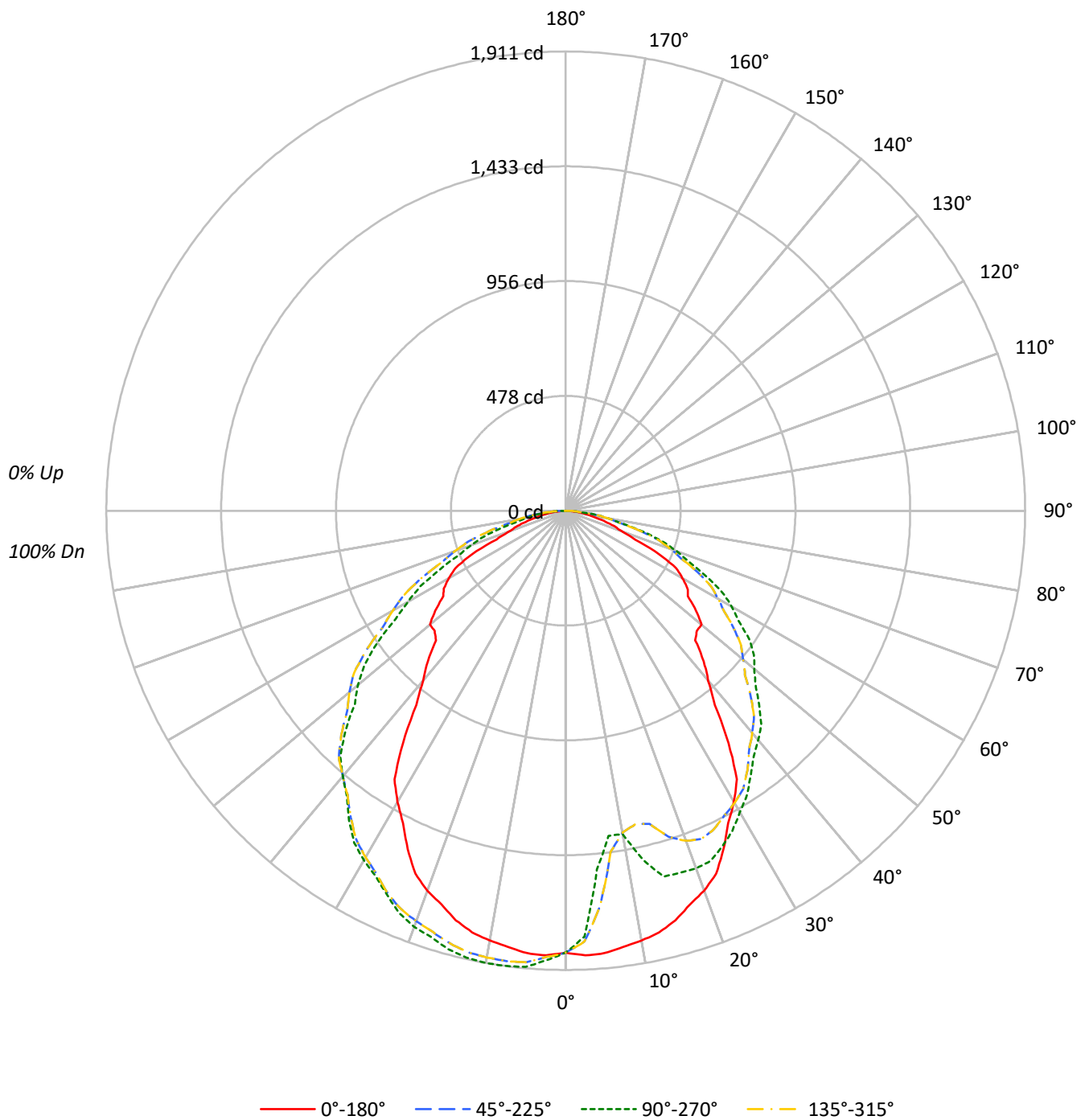
Lumens per Lamp: N/A
Luminaire Lumens: 4766.3 lumens
Efficiency: N/A
Efficacy: 86.2 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

Input Watts (W): 55.3
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
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		102
1	109	105	100	97	106	102	98	95	98	95	92		94	92	89		91
2	99	91	85	79	97	90	83	78	86	81	76		83	78	75		80
3	91	81	73	66	88	79	72	66	76	70	64		73	68	63		71
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		63
5	77	64	55	49	75	63	54	48	61	53	48		59	52	47		57
6	71	58	49	42	69	57	48	42	55	47	42		53	47	41		52
7	66	52	44	38	64	51	43	37	50	43	37		48	42	37		47
8	61	48	39	33	60	47	39	33	46	38	33		44	38	33		43
9	57	44	36	30	56	43	35	30	42	35	30		41	34	30		40
10	54	40	33	27	52	40	32	27	39	32	27		38	32	27		37

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	11313	11313	11313	11313
5°	11410	9250	11410	11765
10°	11346	8532	11346	11933
15°	11235	10039	11235	12022
20°	11014	10365	11014	12061
25°	10546	10463	10546	11951
30°	9936	10295	9936	11926
35°	8872	10074	8872	11798
40°	7405	10004	7405	11582
45°	6630	9884	6630	11261
50°	7060	9791	7060	10790
55°	6661	10002	6661	10244
60°	6893	9804	6893	9311
65°	6280	9370	6280	8383
70°	4381	8794	4381	7479
75°	3888	7773	3888	6493
80°	3206	6039	3206	5547
85°	1962	4178	1962	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°	165.8	3.5
10°-20°	471.2	9.9
20°-30°	728.2	15.3
30°-40°	870.0	18.3
40°-50°	875.6	18.4
50°-60°	760.2	16.0
60°-70°	538.1	11.3
70°-80°	284.6	6.0
80°-90°	72.4	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°	1365.2	28.6
0°-40°	2235.2	46.9
0°-60°	3871.0	81.2
0°-90°	4766.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4766.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1839	1839	1839	1839	1839	
5°	1848	1498	1848	1905	1848	175
15°	1764	1576	1764	1888	1764	496
25°	1554	1542	1554	1761	1554	713
35°	1182	1342	1182	1571	1182	730
45°	762	1136	762	1295	762	614
55°	621	933	621	955	621	571
65°	432	644	432	576	432	411
75°	164	327	164	273	164	173
85°	28	59	28	70	28	40
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°	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3
2.5°	1851.8	1837.9	1832.3	1821.2	1800.3	1789.2	1797.5	1783.6	1789.2	1773.8	1789.2
5°	1848.0	1816.6	1790.5	1747.0	1684.4	1611.3	1593.9	1548.7	1520.8	1498.2	1520.8
7.5°	1830.6	1777.0	1697.3	1564.3	1457.5	1405.3	1392.4	1379.5	1376.1	1364.6	1376.1
10°	1816.6	1743.6	1595.7	1446.0	1371.2	1346.8	1352.0	1357.3	1367.7	1366.0	1367.7
12.5°	1797.2	1685.1	1489.9	1386.2	1336.4	1335.7	1374.3	1443.6	1491.6	1488.5	1491.6
15°	1764.4	1573.0	1390.3	1324.2	1308.5	1388.6	1529.5	1562.6	1574.8	1576.5	1574.8
17.5°	1717.5	1463.4	1326.6	1283.1	1336.4	1510.4	1553.2	1568.2	1578.6	1579.3	1578.6
20°	1682.7	1407.7	1294.6	1265.0	1406.0	1517.4	1543.5	1562.6	1580.0	1583.5	1580.0
22.5°	1635.3	1368.7	1261.2	1252.5	1445.0	1510.4	1533.7	1562.6	1577.2	1576.5	1577.2
25°	1553.9	1320.7	1219.8	1238.9	1449.5	1473.9	1519.1	1538.2	1540.0	1541.7	1540.0
27.5°	1464.5	1278.6	1171.4	1248.0	1421.3	1438.7	1487.4	1497.2	1503.8	1501.0	1503.8
30°	1399.0	1249.4	1138.0	1249.4	1399.0	1409.5	1458.2	1465.2	1456.4	1449.5	1456.4
32.5°	1325.2	1213.2	1106.0	1239.6	1365.6	1380.2	1419.2	1416.4	1407.7	1402.2	1407.7
35°	1181.5	1151.9	1047.5	1207.6	1308.5	1327.7	1350.3	1348.6	1346.8	1341.6	1346.8
37.5°	1019.7	1079.5	989.8	1157.9	1253.6	1252.2	1285.9	1293.2	1291.5	1284.9	1291.5
40°	922.2	1019.7	953.6	1118.9	1214.6	1200.7	1244.2	1252.9	1251.1	1245.9	1251.1
42.5°	849.9	940.3	911.8	1071.5	1167.2	1150.5	1203.8	1212.5	1208.0	1204.1	1208.0
45°	762.2	777.8	847.4	995.3	1087.6	1085.8	1143.2	1151.9	1141.5	1136.3	1141.5
47.5°	739.2	627.1	777.1	906.9	1008.6	1015.2	1076.8	1084.4	1075.0	1070.5	1075.0
50°	737.8	553.3	725.6	838.7	957.0	969.2	1033.6	1037.1	1024.9	1023.2	1024.9
52.5°	683.5	511.6	665.8	778.9	912.5	927.5	986.3	985.6	984.5	987.0	984.5
55°	621.2	461.1	562.0	690.8	843.9	863.1	915.3	917.0	929.2	932.7	929.2
57.5°	600.7	404.0	466.0	614.6	775.0	790.0	839.1	843.2	851.6	851.2	851.6
60°	560.3	363.7	408.9	567.3	722.1	741.3	784.8	791.7	798.7	797.0	798.7
62.5°	518.5	335.8	381.1	528.3	672.0	692.6	722.1	734.7	737.4	734.3	737.4
65°	431.5	299.3	337.6	466.3	595.1	617.7	636.9	645.6	647.3	643.8	647.3
67.5°	311.8	265.5	303.5	405.1	506.7	532.1	543.3	548.5	546.7	553.0	546.7
70°	243.6	241.9	278.4	361.9	452.4	475.0	482.0	487.2	485.5	489.0	485.5
72.5°	210.2	222.4	252.0	317.4	391.2	413.8	418.0	419.0	424.2	420.8	424.2
75°	163.6	189.7	208.8	250.6	306.3	321.9	323.7	325.4	321.9	327.1	321.9
77.5°	114.1	144.4	161.5	185.5	223.1	232.8	232.5	233.5	230.7	230.4	230.7
80°	90.5	109.6	125.3	140.9	168.8	175.7	174.0	172.3	172.3	170.5	172.3
82.5°	66.8	77.6	91.9	103.4	121.5	122.8	125.3	122.2	122.2	124.6	122.2
85°	27.8	36.5	47.0	52.2	59.2	60.9	57.4	62.6	59.2	59.2	59.2
87.5°	7.0	11.1	16.7	19.5	20.9	19.5	19.5	16.7	16.7	16.7	16.7
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°	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3
2.5°	1783.6	1797.5	1789.2	1800.3	1821.2	1832.3	1837.9	1851.8	1851.8	1860.1	1862.9
5°	1548.7	1593.9	1611.3	1684.4	1747.0	1790.5	1816.6	1848.0	1861.9	1881.0	1888.0
7.5°	1379.5	1392.4	1405.3	1457.5	1564.3	1697.3	1777.0	1830.6	1858.8	1883.8	1893.9
10°	1357.3	1352.0	1346.8	1371.2	1446.0	1595.7	1743.6	1816.6	1853.2	1881.0	1889.7
12.5°	1443.6	1374.3	1335.7	1336.4	1386.2	1489.9	1685.1	1797.2	1844.8	1871.3	1881.4
15°	1562.6	1529.5	1388.6	1308.5	1324.2	1390.3	1573.0	1764.4	1823.6	1848.0	1863.6
17.5°	1568.2	1553.2	1510.4	1336.4	1283.1	1326.6	1463.4	1717.5	1792.6	1821.5	1835.4
20°	1562.6	1543.5	1517.4	1406.0	1265.0	1294.6	1407.7	1682.7	1766.2	1799.2	1813.2
22.5°	1562.6	1533.7	1510.4	1445.0	1252.5	1261.2	1368.7	1635.3	1738.3	1772.8	1786.7
25°	1538.2	1519.1	1473.9	1449.5	1238.9	1219.8	1320.7	1553.9	1693.1	1722.7	1743.6
27.5°	1497.2	1487.4	1438.7	1421.3	1248.0	1171.4	1278.6	1464.5	1630.8	1672.9	1695.5
30°	1465.2	1458.2	1409.5	1399.0	1249.4	1138.0	1249.4	1399.0	1576.5	1633.9	1663.5
32.5°	1416.4	1419.2	1380.2	1365.6	1239.6	1106.0	1213.2	1325.2	1495.8	1593.6	1628.7
35°	1348.6	1350.3	1327.7	1308.5	1207.6	1047.5	1151.9	1181.5	1397.3	1536.5	1566.1
37.5°	1293.2	1285.9	1252.2	1253.6	1157.9	989.8	1079.5	1019.7	1308.2	1476.3	1497.9
40°	1252.9	1244.2	1200.7	1214.6	1118.9	953.6	1019.7	922.2	1223.3	1430.3	1447.7
42.5°	1212.5	1203.8	1150.5	1167.2	1071.5	911.8	940.3	849.9	1130.0	1381.6	1386.5
45°	1151.9	1143.2	1085.8	1087.6	995.3	847.4	777.8	762.2	1075.4	1303.3	1303.3
47.5°	1084.4	1076.8	1015.2	1008.6	906.9	777.1	627.1	739.2	998.8	1219.1	1218.4
50°	1037.1	1033.6	969.2	957.0	838.7	725.6	553.3	737.8	943.1	1146.7	1164.1
52.5°	985.6	986.3	927.5	912.5	778.9	665.8	511.6	683.5	874.9	1053.4	1108.4
55°	917.0	915.3	863.1	843.9	690.8	562.0	461.1	621.2	769.1	924.0	1016.2
57.5°	843.2	839.1	790.0	775.0	614.6	466.0	404.0	600.7	604.9	805.7	923.3
60°	791.7	784.8	741.3	722.1	567.3	408.9	363.7	560.3	462.9	722.1	850.9
62.5°	734.7	722.1	692.6	672.0	528.3	381.1	335.8	518.5	361.2	627.5	781.3
65°	645.6	636.9	617.7	595.1	466.3	337.6	299.3	431.5	281.9	429.8	678.6
67.5°	548.5	543.3	532.1	506.7	405.1	303.5	265.5	311.8	214.4	272.8	580.8
70°	487.2	482.0	475.0	452.4	361.9	278.4	241.9	243.6	153.1	201.8	516.8
72.5°	419.0	418.0	413.8	391.2	317.4	252.0	222.4	210.2	129.5	158.7	451.4
75°	325.4	323.7	321.9	306.3	250.6	208.8	189.7	163.6	130.5	113.1	353.2
77.5°	233.5	232.5	232.8	223.1	185.5	161.5	144.4	114.1	116.6	86.0	264.5
80°	172.3	174.0	175.7	168.8	140.9	125.3	109.6	90.5	95.7	67.9	201.8
82.5°	122.2	125.3	122.8	121.5	103.4	91.9	77.6	66.8	67.9	53.9	150.3
85°	62.6	57.4	60.9	59.2	52.2	47.0	36.5	27.8	34.8	31.3	74.8
87.5°	16.7	19.5	19.5	20.9	19.5	16.7	11.1	7.0	12.5	15.3	30.6
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°	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3	1839.3
2.5°	1858.8	1858.8	1871.3	1874.1	1876.9	1872.7	1876.9	1874.1	1871.3	1858.8	1858.8
5°	1886.3	1886.3	1903.7	1908.9	1908.9	1905.4	1908.9	1908.9	1903.7	1886.3	1886.3
7.5°	1888.7	1891.5	1908.9	1912.7	1915.8	1910.6	1915.8	1912.7	1908.9	1891.5	1888.7
10°	1884.5	1891.5	1908.9	1914.1	1915.8	1910.6	1915.8	1914.1	1908.9	1891.5	1884.5
12.5°	1878.9	1884.5	1901.9	1905.7	1908.9	1905.0	1908.9	1905.7	1901.9	1884.5	1878.9
15°	1860.1	1867.1	1886.3	1889.7	1893.2	1888.0	1893.2	1889.7	1886.3	1867.1	1860.1
17.5°	1834.0	1842.7	1860.1	1865.7	1867.5	1860.8	1867.5	1865.7	1860.1	1842.7	1834.0
20°	1813.2	1821.9	1839.3	1846.2	1848.0	1842.7	1848.0	1846.2	1839.3	1821.9	1813.2
22.5°	1786.7	1801.0	1817.0	1819.8	1817.3	1812.1	1817.3	1819.8	1817.0	1801.0	1786.7
25°	1748.8	1761.0	1766.2	1766.2	1766.2	1761.0	1766.2	1766.2	1766.2	1761.0	1748.8
27.5°	1700.4	1706.7	1709.8	1712.6	1716.1	1712.6	1716.1	1712.6	1709.8	1706.7	1700.4
30°	1667.0	1663.5	1672.2	1679.2	1682.7	1679.2	1682.7	1679.2	1672.2	1663.5	1667.0
32.5°	1621.1	1623.1	1636.0	1640.2	1640.9	1637.4	1640.9	1640.2	1636.0	1623.1	1621.1
35°	1553.9	1562.6	1571.3	1574.8	1576.5	1571.3	1576.5	1574.8	1571.3	1562.6	1553.9
37.5°	1482.9	1498.2	1504.5	1500.6	1501.0	1495.4	1501.0	1500.6	1504.5	1498.2	1482.9
40°	1435.6	1449.5	1453.0	1447.7	1449.5	1442.5	1449.5	1447.7	1453.0	1449.5	1435.6
42.5°	1391.0	1402.2	1398.7	1392.1	1391.0	1388.2	1391.0	1392.1	1398.7	1402.2	1391.0
45°	1317.2	1322.5	1306.8	1301.6	1298.1	1294.6	1298.1	1301.6	1306.8	1322.5	1317.2
47.5°	1236.5	1229.5	1214.6	1206.6	1196.8	1190.2	1196.8	1206.6	1214.6	1229.5	1236.5
50°	1185.0	1164.1	1151.9	1132.8	1125.8	1127.6	1125.8	1132.8	1151.9	1164.1	1185.0
52.5°	1122.4	1097.3	1078.2	1061.8	1056.2	1055.2	1056.2	1061.8	1078.2	1097.3	1122.4
55°	1031.9	993.6	962.3	953.6	951.8	955.3	951.8	953.6	962.3	993.6	1031.9
57.5°	920.9	883.3	857.5	850.6	844.6	839.1	844.6	850.6	857.5	883.3	920.9
60°	845.7	810.9	786.5	779.6	763.9	756.9	763.9	779.6	786.5	810.9	845.7
62.5°	778.9	737.1	718.3	704.4	692.9	681.8	692.9	704.4	718.3	737.1	778.9
65°	682.1	633.4	614.2	602.1	581.2	576.0	581.2	602.1	614.2	633.4	682.1
67.5°	576.3	533.9	509.8	493.5	480.3	479.9	480.3	493.5	509.8	533.9	576.3
70°	508.1	469.8	447.2	428.1	417.6	415.9	417.6	428.1	447.2	469.8	508.1
72.5°	441.3	404.4	384.6	366.8	357.8	356.0	357.8	366.8	384.6	404.4	441.3
75°	346.3	311.5	295.8	283.6	276.7	273.2	276.7	283.6	295.8	311.5	346.3
77.5°	256.1	228.0	219.9	207.4	201.5	201.2	201.5	207.4	219.9	228.0	256.1
80°	201.8	179.2	167.0	160.1	158.3	156.6	158.3	160.1	167.0	179.2	201.8
82.5°	146.2	133.3	125.3	121.1	120.8	117.6	120.8	121.1	125.3	133.3	146.2
85°	78.3	74.8	73.1	71.3	69.6	69.6	69.6	71.3	73.1	74.8	78.3
87.5°	32.0	33.4	33.4	34.8	36.2	34.8	36.2	34.8	33.4	33.4	32.0
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-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1839.3	1839.3	1839.3	1839.3
2.5°	1862.9	1860.1	1851.8	1851.8
5°	1888.0	1881.0	1861.9	1848.0
7.5°	1893.9	1883.8	1858.8	1830.6
10°	1889.7	1881.0	1853.2	1816.6
12.5°	1881.4	1871.3	1844.8	1797.2
15°	1863.6	1848.0	1823.6	1764.4
17.5°	1835.4	1821.5	1792.6	1717.5
20°	1813.2	1799.2	1766.2	1682.7
22.5°	1786.7	1772.8	1738.3	1635.3
25°	1743.6	1722.7	1693.1	1553.9
27.5°	1695.5	1672.9	1630.8	1464.5
30°	1663.5	1633.9	1576.5	1399.0
32.5°	1628.7	1593.6	1495.8	1325.2
35°	1566.1	1536.5	1397.3	1181.5
37.5°	1497.9	1476.3	1308.2	1019.7
40°	1447.7	1430.3	1223.3	922.2
42.5°	1386.5	1381.6	1130.0	849.9
45°	1303.3	1303.3	1075.4	762.2
47.5°	1218.4	1219.1	998.8	739.2
50°	1164.1	1146.7	943.1	737.8
52.5°	1108.4	1053.4	874.9	683.5
55°	1016.2	924.0	769.1	621.2
57.5°	923.3	805.7	604.9	600.7
60°	850.9	722.1	462.9	560.3
62.5°	781.3	627.5	361.2	518.5
65°	678.6	429.8	281.9	431.5
67.5°	580.8	272.8	214.4	311.8
70°	516.8	201.8	153.1	243.6
72.5°	451.4	158.7	129.5	210.2
75°	353.2	113.1	130.5	163.6
77.5°	264.5	86.0	116.6	114.1
80°	201.8	67.9	95.7	90.5
82.5°	150.3	53.9	67.9	66.8
85°	74.8	31.3	34.8	27.8
87.5°	30.6	15.3	12.5	7.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)