

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-050D-935-1D-UNV-STD-W-12

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-050D-935-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

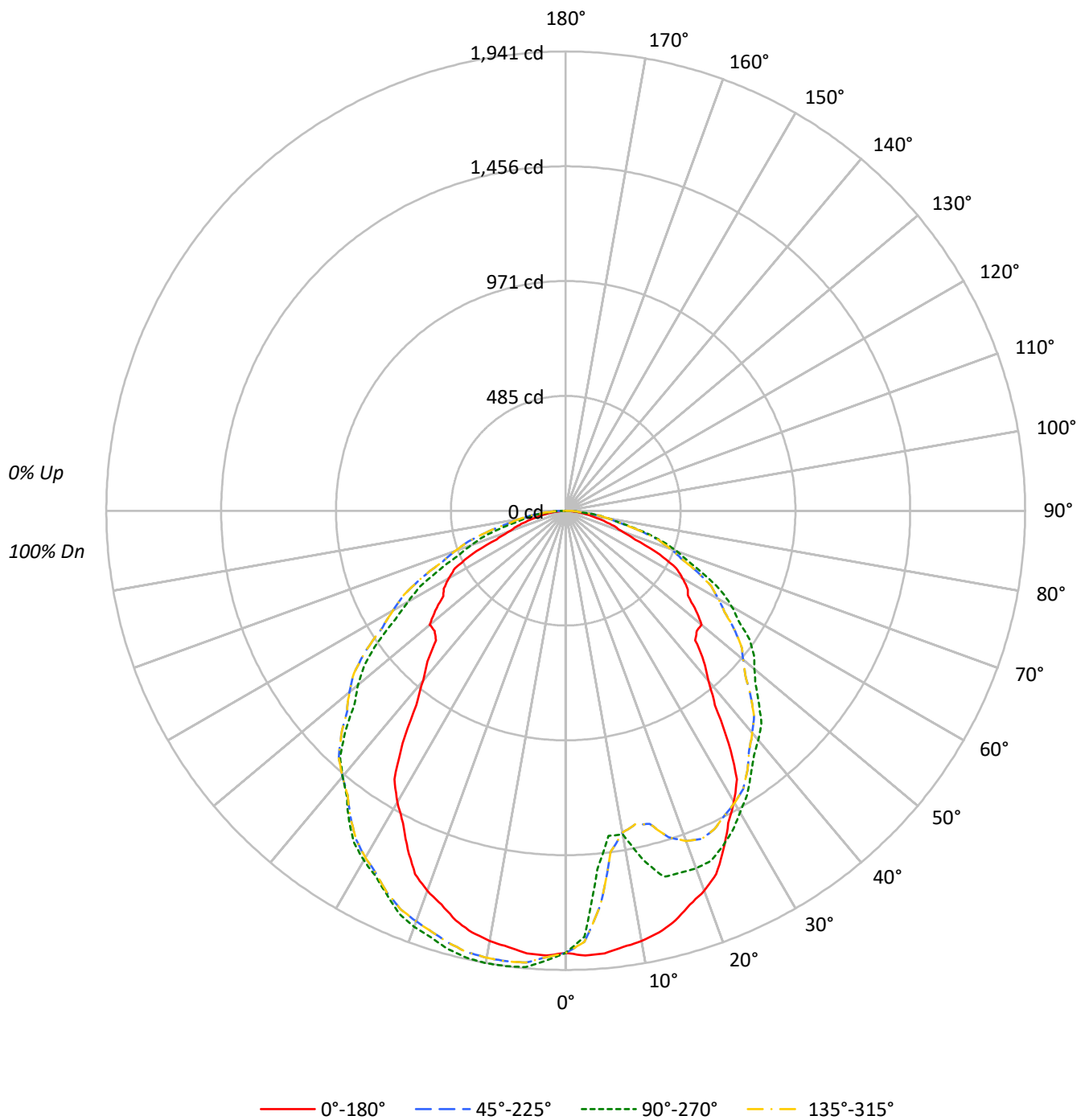
Lumens per Lamp: N/A
Luminaire Lumens: 4843.2 lumens
Efficiency: N/A
Efficacy: 90.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 53.4
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

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-935-1D-UNV-STD-W-12

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°	5748	5748	5748	5748
5°	5797	4700	5797	5977
10°	5765	4335	5765	6063
15°	5708	5101	5708	6108
20°	5596	5266	5596	6128
25°	5358	5316	5358	6072
30°	5048	5231	5048	6059
35°	4507	5118	4507	5994
40°	3762	5083	3762	5885
45°	3369	5022	3369	5721
50°	3587	4974	3587	5482
55°	3384	5081	3384	5205
60°	3502	4981	3502	4731
65°	3191	4761	3191	4259
70°	2225	4468	2225	3800
75°	1975	3950	1975	3299
80°	1628	3069	1628	2818
85°	999	2121	999	2495

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 5845 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-935-1D-UNV-STD-W-12

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	168.5	3.5
10°-20°	478.8	9.9
20°-30°	739.9	15.3
30°-40°	884.0	18.3
40°-50°	889.8	18.4
50°-60°	772.5	16.0
60°-70°	546.8	11.3
70°-80°	289.2	6.0
80°-90°	73.6	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°	1387.2	28.6
0°-40°	2271.3	46.9
0°-60°	3933.5	81.2
0°-90°	4843.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4843.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1869	1869	1869	1869	1869	
5°	1878	1522	1878	1936	1878	178
15°	1793	1602	1793	1918	1793	504
25°	1579	1567	1579	1789	1579	724
35°	1201	1363	1201	1597	1201	741
45°	774	1155	774	1316	774	624
55°	631	948	631	971	631	581
65°	438	654	438	585	438	417
75°	166	332	166	278	166	175
85°	28	60	28	71	28	41
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9
2.5°	1881.7	1867.5	1861.9	1850.6	1829.3	1818.0	1826.5	1812.4	1818.0	1802.5	1818.0
5°	1877.8	1846.0	1819.4	1775.2	1711.6	1637.3	1619.6	1573.7	1545.4	1522.4	1545.4
7.5°	1860.1	1805.6	1724.7	1589.6	1481.0	1428.0	1414.9	1401.8	1398.3	1386.6	1398.3
10°	1846.0	1771.7	1621.4	1469.3	1393.3	1368.6	1373.9	1379.2	1389.8	1388.0	1389.8
12.5°	1826.2	1712.3	1513.9	1408.5	1357.9	1357.2	1396.5	1466.9	1515.7	1512.5	1515.7
15°	1792.9	1598.4	1412.8	1345.6	1329.7	1411.0	1554.2	1587.8	1600.2	1602.0	1600.2
17.5°	1745.2	1487.0	1348.0	1303.8	1357.9	1534.8	1578.3	1593.5	1604.1	1604.8	1604.1
20°	1709.8	1430.4	1315.5	1285.5	1428.7	1541.8	1568.4	1587.8	1605.5	1609.0	1605.5
22.5°	1661.7	1390.8	1281.6	1272.7	1468.3	1534.8	1558.5	1587.8	1602.7	1602.0	1602.7
25°	1579.0	1342.0	1239.5	1258.9	1472.9	1497.6	1543.6	1563.1	1564.8	1566.6	1564.8
27.5°	1488.1	1299.2	1190.3	1268.1	1444.2	1461.9	1511.4	1521.3	1528.0	1525.2	1528.0
30°	1421.6	1269.5	1156.4	1269.5	1421.6	1432.2	1481.7	1488.8	1479.9	1472.9	1479.9
32.5°	1346.6	1232.8	1123.8	1259.6	1387.7	1402.5	1442.1	1439.3	1430.4	1424.8	1430.4
35°	1200.6	1170.5	1064.4	1227.1	1329.7	1349.1	1372.1	1370.3	1368.6	1363.3	1368.6
37.5°	1036.1	1097.0	1005.7	1176.5	1273.8	1272.4	1306.7	1314.1	1312.3	1305.6	1312.3
40°	937.1	1036.1	969.0	1136.9	1234.2	1220.0	1264.2	1273.1	1271.3	1266.0	1271.3
42.5°	863.6	955.5	926.5	1088.8	1186.1	1169.1	1223.2	1232.1	1227.5	1223.6	1227.5
45°	774.5	790.4	861.1	1011.4	1105.1	1103.3	1161.7	1170.5	1159.9	1154.6	1159.9
47.5°	751.1	637.2	789.7	921.6	1024.8	1031.5	1094.1	1101.9	1092.4	1087.8	1092.4
50°	749.7	562.3	737.3	852.3	972.5	984.9	1050.3	1053.8	1041.4	1039.7	1041.4
52.5°	694.5	519.8	676.5	791.4	927.2	942.4	1002.2	1001.5	1000.4	1002.9	1000.4
55°	631.2	468.6	571.1	702.0	857.6	877.0	930.1	931.8	944.2	947.7	944.2
57.5°	610.4	410.6	473.5	624.5	787.5	802.7	852.6	856.9	865.3	865.0	865.3
60°	569.3	369.5	415.5	576.4	733.8	753.2	797.4	804.5	811.6	809.8	811.6
62.5°	526.9	341.3	387.2	536.8	682.9	703.7	733.8	746.5	749.3	746.2	749.3
65°	438.5	304.1	343.0	473.9	604.7	627.7	647.1	656.0	657.8	654.2	657.8
67.5°	316.9	269.8	308.4	411.6	514.9	540.7	552.0	557.3	555.6	561.9	555.6
70°	247.5	245.8	282.9	367.8	459.7	482.7	489.8	495.1	493.3	496.9	493.3
72.5°	213.6	226.0	256.0	322.5	397.5	420.5	424.7	425.8	431.1	427.5	431.1
75°	166.2	192.7	212.2	254.6	311.2	327.1	328.9	330.6	327.1	332.4	327.1
77.5°	116.0	146.8	164.1	188.5	226.7	236.6	236.2	237.3	234.5	234.1	234.5
80°	91.9	111.4	127.3	143.2	171.5	178.6	176.8	175.0	175.0	173.3	175.0
82.5°	67.9	78.9	93.4	105.0	123.4	124.8	127.3	124.1	124.1	126.6	124.1
85°	28.3	37.1	47.7	53.0	60.1	61.9	58.3	63.7	60.1	60.1	60.1
87.5°	7.1	11.3	17.0	19.8	21.2	19.8	19.8	17.0	17.0	17.0	17.0
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-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9
2.5°	1812.4	1826.5	1818.0	1829.3	1850.6	1861.9	1867.5	1881.7	1881.7	1890.2	1893.0
5°	1573.7	1619.6	1637.3	1711.6	1775.2	1819.4	1846.0	1877.8	1891.9	1911.4	1918.5
7.5°	1401.8	1414.9	1428.0	1481.0	1589.6	1724.7	1805.6	1860.1	1888.7	1914.2	1924.5
10°	1379.2	1373.9	1368.6	1393.3	1469.3	1621.4	1771.7	1846.0	1883.1	1911.4	1920.2
12.5°	1466.9	1396.5	1357.2	1357.9	1408.5	1513.9	1712.3	1826.2	1874.6	1901.5	1911.7
15°	1587.8	1554.2	1411.0	1329.7	1345.6	1412.8	1598.4	1792.9	1853.0	1877.8	1893.7
17.5°	1593.5	1578.3	1534.8	1357.9	1303.8	1348.0	1487.0	1745.2	1821.6	1850.9	1865.1
20°	1587.8	1568.4	1541.8	1428.7	1285.5	1315.5	1430.4	1709.8	1794.7	1828.3	1842.4
22.5°	1587.8	1558.5	1534.8	1468.3	1272.7	1281.6	1390.8	1661.7	1766.4	1801.4	1815.5
25°	1563.1	1543.6	1497.6	1472.9	1258.9	1239.5	1342.0	1579.0	1720.4	1750.5	1771.7
27.5°	1521.3	1511.4	1461.9	1444.2	1268.1	1190.3	1299.2	1488.1	1657.1	1699.9	1722.9
30°	1488.8	1481.7	1432.2	1421.6	1269.5	1156.4	1269.5	1421.6	1602.0	1660.3	1690.4
32.5°	1439.3	1442.1	1402.5	1387.7	1259.6	1123.8	1232.8	1346.6	1519.9	1619.3	1655.0
35°	1370.3	1372.1	1349.1	1329.7	1227.1	1064.4	1170.5	1200.6	1419.8	1561.3	1591.3
37.5°	1314.1	1306.7	1272.4	1273.8	1176.5	1005.7	1097.0	1036.1	1329.3	1500.1	1522.0
40°	1273.1	1264.2	1220.0	1234.2	1136.9	969.0	1036.1	937.1	1243.0	1453.4	1471.1
42.5°	1232.1	1223.2	1169.1	1186.1	1088.8	926.5	955.5	863.6	1148.2	1403.9	1408.9
45°	1170.5	1161.7	1103.3	1105.1	1011.4	861.1	790.4	774.5	1092.7	1324.4	1324.4
47.5°	1101.9	1094.1	1031.5	1024.8	921.6	789.7	637.2	751.1	1014.9	1238.8	1238.1
50°	1053.8	1050.3	984.9	972.5	852.3	737.3	562.3	749.7	958.3	1165.2	1182.9
52.5°	1001.5	1002.2	942.4	927.2	791.4	676.5	519.8	694.5	889.0	1070.4	1126.3
55°	931.8	930.1	877.0	857.6	702.0	571.1	468.6	631.2	781.5	938.9	1032.6
57.5°	856.9	852.6	802.7	787.5	624.5	473.5	410.6	610.4	614.6	818.7	938.2
60°	804.5	797.4	753.2	733.8	576.4	415.5	369.5	569.3	470.3	733.8	864.6
62.5°	746.5	733.8	703.7	682.9	536.8	387.2	341.3	526.9	367.1	637.6	793.9
65°	656.0	647.1	627.7	604.7	473.9	343.0	304.1	438.5	286.4	436.7	689.6
67.5°	557.3	552.0	540.7	514.9	411.6	308.4	269.8	316.9	217.8	277.2	590.2
70°	495.1	489.8	482.7	459.7	367.8	282.9	245.8	247.5	155.6	205.1	525.1
72.5°	425.8	424.7	420.5	397.5	322.5	256.0	226.0	213.6	131.6	161.3	458.7
75°	330.6	328.9	327.1	311.2	254.6	212.2	192.7	166.2	132.6	114.9	358.9
77.5°	237.3	236.2	236.6	226.7	188.5	164.1	146.8	116.0	118.5	87.3	268.8
80°	175.0	176.8	178.6	171.5	143.2	127.3	111.4	91.9	97.2	69.0	205.1
82.5°	124.1	127.3	124.8	123.4	105.0	93.4	78.9	67.9	69.0	54.8	152.8
85°	63.7	58.3	61.9	60.1	53.0	47.7	37.1	28.3	35.4	31.8	76.0
87.5°	17.0	19.8	19.8	21.2	19.8	17.0	11.3	7.1	12.7	15.6	31.1
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-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9	1868.9
2.5°	1888.7	1888.7	1901.5	1904.3	1907.1	1902.9	1907.1	1904.3	1901.5	1888.7	1888.7
5°	1916.7	1916.7	1934.4	1939.7	1939.7	1936.1	1939.7	1939.7	1934.4	1916.7	1916.7
7.5°	1919.2	1922.0	1939.7	1943.6	1946.7	1941.4	1946.7	1943.6	1939.7	1922.0	1919.2
10°	1914.9	1922.0	1939.7	1945.0	1946.7	1941.4	1946.7	1945.0	1939.7	1922.0	1914.9
12.5°	1909.3	1914.9	1932.6	1936.5	1939.7	1935.8	1939.7	1936.5	1932.6	1914.9	1909.3
15°	1890.2	1897.2	1916.7	1920.2	1923.8	1918.5	1923.8	1920.2	1916.7	1897.2	1890.2
17.5°	1863.6	1872.5	1890.2	1895.8	1897.6	1890.9	1897.6	1895.8	1890.2	1872.5	1863.6
20°	1842.4	1851.3	1868.9	1876.0	1877.8	1872.5	1877.8	1876.0	1868.9	1851.3	1842.4
22.5°	1815.5	1830.0	1846.3	1849.1	1846.7	1841.4	1846.7	1849.1	1846.3	1830.0	1815.5
25°	1777.0	1789.4	1794.7	1794.7	1794.7	1789.4	1794.7	1794.7	1794.7	1789.4	1777.0
27.5°	1727.8	1734.2	1737.4	1740.2	1743.8	1740.2	1743.8	1740.2	1737.4	1734.2	1727.8
30°	1693.9	1690.4	1699.2	1706.3	1709.8	1706.3	1709.8	1706.3	1699.2	1690.4	1693.9
32.5°	1647.2	1649.3	1662.4	1666.7	1667.4	1663.8	1667.4	1666.7	1662.4	1649.3	1647.2
35°	1579.0	1587.8	1596.6	1600.2	1602.0	1596.6	1602.0	1600.2	1596.6	1587.8	1579.0
37.5°	1506.8	1522.4	1528.8	1524.9	1525.2	1519.6	1525.2	1524.9	1528.8	1522.4	1506.8
40°	1458.7	1472.9	1476.4	1471.1	1472.9	1465.8	1472.9	1471.1	1476.4	1472.9	1458.7
42.5°	1413.5	1424.8	1421.2	1414.5	1413.5	1410.6	1413.5	1414.5	1421.2	1424.8	1413.5
45°	1338.5	1343.8	1327.9	1322.6	1319.0	1315.5	1319.0	1322.6	1327.9	1343.8	1338.5
47.5°	1256.5	1249.4	1234.2	1226.0	1216.1	1209.4	1216.1	1226.0	1234.2	1249.4	1256.5
50°	1204.1	1182.9	1170.5	1151.1	1144.0	1145.8	1144.0	1151.1	1170.5	1182.9	1204.1
52.5°	1140.5	1115.0	1095.6	1078.9	1073.3	1072.2	1073.3	1078.9	1095.6	1115.0	1140.5
55°	1048.5	1009.6	977.8	969.0	967.2	970.7	967.2	969.0	977.8	1009.6	1048.5
57.5°	935.7	897.5	871.3	864.3	858.3	852.6	858.3	864.3	871.3	897.5	935.7
60°	859.3	824.0	799.2	792.1	776.2	769.1	776.2	792.1	799.2	824.0	859.3
62.5°	791.4	749.0	729.9	715.8	704.1	692.8	704.1	715.8	729.9	749.0	791.4
65°	693.1	643.6	624.2	611.8	590.6	585.3	590.6	611.8	624.2	643.6	693.1
67.5°	585.6	542.5	518.1	501.5	488.0	487.7	488.0	501.5	518.1	542.5	585.6
70°	516.3	477.4	454.4	435.0	424.4	422.6	424.4	435.0	454.4	477.4	516.3
72.5°	448.4	410.9	390.8	372.7	363.5	361.8	363.5	372.7	390.8	410.9	448.4
75°	351.9	316.5	300.6	288.2	281.1	277.6	281.1	288.2	300.6	316.5	351.9
77.5°	260.3	231.6	223.5	210.8	204.8	204.4	204.8	210.8	223.5	231.6	260.3
80°	205.1	182.1	169.7	162.7	160.9	159.1	160.9	162.7	169.7	182.1	205.1
82.5°	148.5	135.4	127.3	123.1	122.7	119.5	122.7	123.1	127.3	135.4	148.5
85°	79.6	76.0	74.3	72.5	70.7	70.7	70.7	72.5	74.3	76.0	79.6
87.5°	32.5	33.9	33.9	35.4	36.8	35.4	36.8	35.4	33.9	33.9	32.5
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-050D-935-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1868.9	1868.9	1868.9	1868.9
2.5°	1893.0	1890.2	1881.7	1881.7
5°	1918.5	1911.4	1891.9	1877.8
7.5°	1924.5	1914.2	1888.7	1860.1
10°	1920.2	1911.4	1883.1	1846.0
12.5°	1911.7	1901.5	1874.6	1826.2
15°	1893.7	1877.8	1853.0	1792.9
17.5°	1865.1	1850.9	1821.6	1745.2
20°	1842.4	1828.3	1794.7	1709.8
22.5°	1815.5	1801.4	1766.4	1661.7
25°	1771.7	1750.5	1720.4	1579.0
27.5°	1722.9	1699.9	1657.1	1488.1
30°	1690.4	1660.3	1602.0	1421.6
32.5°	1655.0	1619.3	1519.9	1346.6
35°	1591.3	1561.3	1419.8	1200.6
37.5°	1522.0	1500.1	1329.3	1036.1
40°	1471.1	1453.4	1243.0	937.1
42.5°	1408.9	1403.9	1148.2	863.6
45°	1324.4	1324.4	1092.7	774.5
47.5°	1238.1	1238.8	1014.9	751.1
50°	1182.9	1165.2	958.3	749.7
52.5°	1126.3	1070.4	889.0	694.5
55°	1032.6	938.9	781.5	631.2
57.5°	938.2	818.7	614.6	610.4
60°	864.6	733.8	470.3	569.3
62.5°	793.9	637.6	367.1	526.9
65°	689.6	436.7	286.4	438.5
67.5°	590.2	277.2	217.8	316.9
70°	525.1	205.1	155.6	247.5
72.5°	458.7	161.3	131.6	213.6
75°	358.9	114.9	132.6	166.2
77.5°	268.8	87.3	118.5	116.0
80°	205.1	69.0	97.2	91.9
82.5°	152.8	54.8	69.0	67.9
85°	76.0	31.8	35.4	28.3
87.5°	31.1	15.6	12.7	7.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)