

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-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-075D-940-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

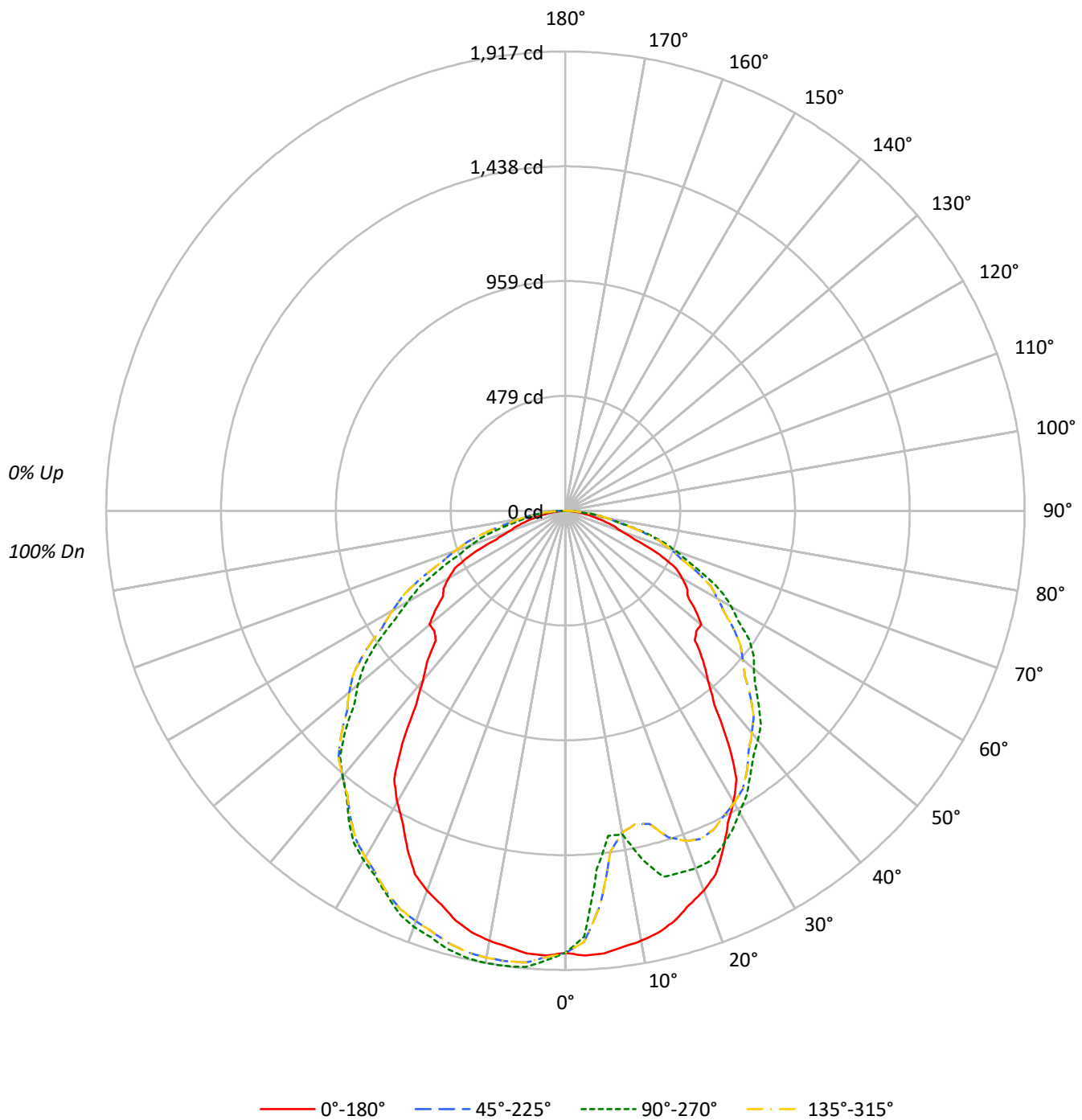
Lumens per Lamp: N/A
Luminaire Lumens: 4782.4 lumens
Efficiency: N/A
Efficacy: 87.9 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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				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°	8513	8513	8513	8513
5°	8586	6961	8586	8853
10°	8538	6420	8538	8980
15°	8455	7555	8455	9047
20°	8289	7800	8289	9077
25°	7936	7874	7936	8994
30°	7478	7747	7478	8975
35°	6676	7581	6676	8879
40°	5573	7528	5573	8716
45°	4989	7438	4989	8475
50°	5313	7368	5313	8120
55°	5013	7527	5013	7710
60°	5187	7378	5187	7007
65°	4726	7051	4726	6308
70°	3296	6617	3296	5628
75°	2925	5850	2925	4885
80°	2412	4545	2412	4173
85°	1477	3144	1477	3694

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 8657 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	166.4	3.5
10°-20°	472.8	9.9
20°-30°	730.7	15.3
30°-40°	873.0	18.3
40°-50°	878.6	18.4
50°-60°	762.8	16.0
60°-70°	540.0	11.3
70°-80°	285.6	6.0
80°-90°	72.7	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°	1369.8	28.6
0°-40°	2242.8	46.9
0°-60°	3884.2	81.2
0°-90°	4782.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4782.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1846	1846	1846	1846	1846	
5°	1854	1503	1854	1912	1854	176
15°	1770	1582	1770	1894	1770	498
25°	1559	1547	1559	1767	1559	715
35°	1186	1346	1186	1577	1186	732
45°	765	1140	765	1299	765	616
55°	623	936	623	959	623	573
65°	433	646	433	578	433	412
75°	164	328	164	274	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°	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5
2.5°	1858.1	1844.1	1838.5	1827.4	1806.4	1795.2	1803.6	1789.6	1795.2	1779.9	1795.2
5°	1854.2	1822.8	1796.6	1753.0	1690.1	1616.8	1599.3	1553.9	1526.0	1503.3	1526.0
7.5°	1836.8	1783.0	1703.0	1569.6	1462.4	1410.1	1397.1	1384.2	1380.7	1369.2	1380.7
10°	1822.8	1749.5	1601.1	1450.9	1375.8	1351.4	1356.6	1361.9	1372.4	1370.6	1372.4
12.5°	1803.3	1690.8	1494.9	1390.9	1340.9	1340.2	1379.0	1448.5	1496.7	1493.5	1496.7
15°	1770.4	1578.4	1395.1	1328.7	1313.0	1393.3	1534.7	1567.9	1580.1	1581.9	1580.1
17.5°	1723.3	1468.4	1331.1	1287.5	1340.9	1515.5	1558.5	1573.5	1584.0	1584.7	1584.0
20°	1688.4	1412.5	1299.0	1269.3	1410.8	1522.5	1548.7	1567.9	1585.4	1588.9	1585.4
22.5°	1640.9	1373.4	1265.5	1256.8	1449.9	1515.5	1538.9	1567.9	1582.6	1581.9	1582.6
25°	1559.2	1325.2	1223.9	1243.1	1454.4	1478.9	1524.3	1543.5	1545.2	1547.0	1545.2
27.5°	1469.4	1283.0	1175.4	1252.2	1426.1	1443.6	1492.5	1502.3	1508.9	1506.1	1508.9
30°	1403.8	1253.6	1141.9	1253.6	1403.8	1414.3	1463.1	1470.1	1461.4	1454.4	1461.4
32.5°	1329.7	1217.3	1109.8	1243.8	1370.3	1384.9	1424.0	1421.2	1412.5	1406.9	1412.5
35°	1185.5	1155.8	1051.1	1211.7	1313.0	1332.2	1354.9	1353.1	1351.4	1346.2	1351.4
37.5°	1023.2	1083.2	993.1	1161.8	1257.8	1256.4	1290.3	1297.6	1295.9	1289.2	1295.9
40°	925.4	1023.2	956.8	1122.7	1218.7	1204.7	1248.4	1257.1	1255.4	1250.1	1255.4
42.5°	852.7	943.5	914.9	1075.2	1171.2	1154.5	1207.9	1216.6	1212.1	1208.2	1212.1
45°	764.7	780.5	850.3	998.7	1091.2	1089.5	1147.1	1155.8	1145.4	1140.1	1145.4
47.5°	741.7	629.3	779.8	910.0	1012.0	1018.6	1080.4	1088.1	1078.7	1074.1	1078.7
50°	740.3	555.2	728.1	841.6	960.3	972.5	1037.1	1040.6	1028.4	1026.6	1028.4
52.5°	685.8	513.3	668.0	781.5	915.6	930.6	989.6	988.9	987.9	990.3	987.9
55°	623.3	462.7	564.0	693.2	846.8	866.0	918.4	920.1	932.4	935.9	932.4
57.5°	602.7	405.4	467.6	616.7	777.7	792.7	841.9	846.1	854.5	854.1	854.5
60°	562.2	364.9	410.3	569.2	724.6	743.8	787.4	794.4	801.4	799.7	801.4
62.5°	520.3	337.0	382.4	530.1	674.3	694.9	724.6	737.2	740.0	736.8	740.0
65°	433.0	300.3	338.7	467.9	597.1	619.8	639.0	647.8	649.5	646.0	649.5
67.5°	312.9	266.4	304.5	406.5	508.4	533.9	545.1	550.3	548.6	554.9	548.6
70°	244.4	242.7	279.4	363.2	454.0	476.7	483.6	488.9	487.1	490.6	487.1
72.5°	210.9	223.1	252.8	318.5	392.5	415.2	419.4	420.4	425.7	422.2	425.7
75°	164.1	190.3	209.5	251.4	307.3	323.0	324.8	326.5	323.0	328.2	323.0
77.5°	114.5	144.9	162.0	186.1	223.8	233.6	233.3	234.3	231.5	231.2	231.5
80°	90.8	110.0	125.7	141.4	169.4	176.3	174.6	172.9	172.9	171.1	172.9
82.5°	67.0	77.9	92.2	103.7	121.9	123.3	125.7	122.6	122.6	125.0	122.6
85°	27.9	36.7	47.1	52.4	59.4	61.1	57.6	62.9	59.4	59.4	59.4
87.5°	7.0	11.2	16.8	19.6	21.0	19.6	19.6	16.8	16.8	16.8	16.8
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5
2.5°	1789.6	1803.6	1795.2	1806.4	1827.4	1838.5	1844.1	1858.1	1858.1	1866.5	1869.3
5°	1553.9	1599.3	1616.8	1690.1	1753.0	1796.6	1822.8	1854.2	1868.2	1887.4	1894.4
7.5°	1384.2	1397.1	1410.1	1462.4	1569.6	1703.0	1783.0	1836.8	1865.1	1890.2	1900.3
10°	1361.9	1356.6	1351.4	1375.8	1450.9	1601.1	1749.5	1822.8	1859.5	1887.4	1896.2
12.5°	1448.5	1379.0	1340.2	1340.9	1390.9	1494.9	1690.8	1803.3	1851.1	1877.6	1887.8
15°	1567.9	1534.7	1393.3	1313.0	1328.7	1395.1	1578.4	1770.4	1829.8	1854.2	1870.0
17.5°	1573.5	1558.5	1515.5	1340.9	1287.5	1331.1	1468.4	1723.3	1798.7	1827.7	1841.7
20°	1567.9	1548.7	1522.5	1410.8	1269.3	1299.0	1412.5	1688.4	1772.2	1805.4	1819.3
22.5°	1567.9	1538.9	1515.5	1449.9	1256.8	1265.5	1373.4	1640.9	1744.2	1778.8	1792.8
25°	1543.5	1524.3	1478.9	1454.4	1243.1	1223.9	1325.2	1559.2	1698.9	1728.5	1749.5
27.5°	1502.3	1492.5	1443.6	1426.1	1252.2	1175.4	1283.0	1469.4	1636.3	1678.6	1701.3
30°	1470.1	1463.1	1414.3	1403.8	1253.6	1141.9	1253.6	1403.8	1581.9	1639.5	1669.2
32.5°	1421.2	1424.0	1384.9	1370.3	1243.8	1109.8	1217.3	1329.7	1500.9	1599.0	1634.3
35°	1353.1	1354.9	1332.2	1313.0	1211.7	1051.1	1155.8	1185.5	1402.0	1541.7	1571.4
37.5°	1297.6	1290.3	1256.4	1257.8	1161.8	993.1	1083.2	1023.2	1312.6	1481.3	1503.0
40°	1257.1	1248.4	1204.7	1218.7	1122.7	956.8	1023.2	925.4	1227.4	1435.2	1452.7
42.5°	1216.6	1207.9	1154.5	1171.2	1075.2	914.9	943.5	852.7	1133.8	1386.3	1391.2
45°	1155.8	1147.1	1089.5	1091.2	998.7	850.3	780.5	764.7	1079.0	1307.8	1307.8
47.5°	1088.1	1080.4	1018.6	1012.0	910.0	779.8	629.3	741.7	1002.2	1223.2	1222.5
50°	1040.6	1037.1	972.5	960.3	841.6	728.1	555.2	740.3	946.3	1150.6	1168.1
52.5°	988.9	989.6	930.6	915.6	781.5	668.0	513.3	685.8	877.9	1057.0	1112.2
55°	920.1	918.4	866.0	846.8	693.2	564.0	462.7	623.3	771.7	927.1	1019.7
57.5°	846.1	841.9	792.7	777.7	616.7	467.6	405.4	602.7	606.9	808.4	926.4
60°	794.4	787.4	743.8	724.6	569.2	410.3	364.9	562.2	464.4	724.6	853.8
62.5°	737.2	724.6	694.9	674.3	530.1	382.4	337.0	520.3	362.5	629.6	784.0
65°	647.8	639.0	619.8	597.1	467.9	338.7	300.3	433.0	282.9	431.3	680.9
67.5°	550.3	545.1	533.9	508.4	406.5	304.5	266.4	312.9	215.1	273.8	582.8
70°	488.9	483.6	476.7	454.0	363.2	279.4	242.7	244.4	153.6	202.5	518.6
72.5°	420.4	419.4	415.2	392.5	318.5	252.8	223.1	210.9	129.9	159.2	452.9
75°	326.5	324.8	323.0	307.3	251.4	209.5	190.3	164.1	130.9	113.5	354.4
77.5°	234.3	233.3	233.6	223.8	186.1	162.0	144.9	114.5	117.0	86.3	265.4
80°	172.9	174.6	176.3	169.4	141.4	125.7	110.0	90.8	96.0	68.1	202.5
82.5°	122.6	125.7	123.3	121.9	103.7	92.2	77.9	67.0	68.1	54.1	150.9
85°	62.9	57.6	61.1	59.4	52.4	47.1	36.7	27.9	34.9	31.4	75.1
87.5°	16.8	19.6	19.6	21.0	19.6	16.8	11.2	7.0	12.6	15.4	30.7
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):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5	1845.5
2.5°	1865.1	1865.1	1877.6	1880.4	1883.2	1879.0	1883.2	1880.4	1877.6	1865.1	1865.1
5°	1892.7	1892.7	1910.1	1915.4	1915.4	1911.9	1915.4	1915.4	1910.1	1892.7	1892.7
7.5°	1895.1	1897.9	1915.4	1919.2	1922.3	1917.1	1922.3	1919.2	1915.4	1897.9	1895.1
10°	1890.9	1897.9	1915.4	1920.6	1922.3	1917.1	1922.3	1920.6	1915.4	1897.9	1890.9
12.5°	1885.3	1890.9	1908.4	1912.2	1915.4	1911.5	1915.4	1912.2	1908.4	1890.9	1885.3
15°	1866.5	1873.5	1892.7	1896.2	1899.6	1894.4	1899.6	1896.2	1892.7	1873.5	1866.5
17.5°	1840.3	1849.0	1866.5	1872.1	1873.8	1867.2	1873.8	1872.1	1866.5	1849.0	1840.3
20°	1819.3	1828.1	1845.5	1852.5	1854.2	1849.0	1854.2	1852.5	1845.5	1828.1	1819.3
22.5°	1792.8	1807.1	1823.2	1826.0	1823.5	1818.3	1823.5	1826.0	1823.2	1807.1	1792.8
25°	1754.7	1766.9	1772.2	1772.2	1772.2	1766.9	1772.2	1772.2	1772.2	1766.9	1754.7
27.5°	1706.2	1712.5	1715.6	1718.4	1721.9	1718.4	1721.9	1718.4	1715.6	1712.5	1706.2
30°	1672.7	1669.2	1677.9	1684.9	1688.4	1684.9	1688.4	1684.9	1677.9	1669.2	1672.7
32.5°	1626.6	1628.7	1641.6	1645.8	1646.5	1643.0	1646.5	1645.8	1641.6	1628.7	1626.6
35°	1559.2	1567.9	1576.6	1580.1	1581.9	1576.6	1581.9	1580.1	1576.6	1567.9	1559.2
37.5°	1487.9	1503.3	1509.6	1505.7	1506.1	1500.5	1506.1	1505.7	1509.6	1503.3	1487.9
40°	1440.4	1454.4	1457.9	1452.7	1454.4	1447.4	1454.4	1452.7	1457.9	1454.4	1440.4
42.5°	1395.7	1406.9	1403.4	1396.8	1395.7	1393.0	1395.7	1396.8	1403.4	1406.9	1395.7
45°	1321.7	1327.0	1311.2	1306.0	1302.5	1299.0	1302.5	1306.0	1311.2	1327.0	1321.7
47.5°	1240.7	1233.7	1218.7	1210.7	1200.9	1194.3	1200.9	1210.7	1218.7	1233.7	1240.7
50°	1189.0	1168.1	1155.8	1136.6	1129.7	1131.4	1129.7	1136.6	1155.8	1168.1	1189.0
52.5°	1126.2	1101.0	1081.8	1065.4	1059.8	1058.8	1059.8	1065.4	1081.8	1101.0	1126.2
55°	1035.4	997.0	965.5	956.8	955.1	958.6	955.1	956.8	965.5	997.0	1035.4
57.5°	924.0	886.3	860.4	853.4	847.5	841.9	847.5	853.4	860.4	886.3	924.0
60°	848.6	813.6	789.2	782.2	766.5	759.5	766.5	782.2	789.2	813.6	848.6
62.5°	781.5	739.6	720.7	706.8	695.3	684.1	695.3	706.8	720.7	739.6	781.5
65°	684.4	635.5	616.3	604.1	583.2	577.9	583.2	604.1	616.3	635.5	684.4
67.5°	578.3	535.7	511.6	495.2	481.9	481.5	481.9	495.2	511.6	535.7	578.3
70°	509.8	471.4	448.7	429.5	419.0	417.3	419.0	429.5	448.7	471.4	509.8
72.5°	442.8	405.8	385.9	368.1	359.0	357.2	359.0	368.1	385.9	405.8	442.8
75°	347.5	312.5	296.8	284.6	277.6	274.1	277.6	284.6	296.8	312.5	347.5
77.5°	257.0	228.7	220.7	208.1	202.2	201.8	202.2	208.1	220.7	228.7	257.0
80°	202.5	179.8	167.6	160.6	158.9	157.1	158.9	160.6	167.6	179.8	202.5
82.5°	146.7	133.7	125.7	121.5	121.2	118.0	121.2	121.5	125.7	133.7	146.7
85°	78.6	75.1	73.3	71.6	69.8	69.8	69.8	71.6	73.3	75.1	78.6
87.5°	32.1	33.5	33.5	34.9	36.3	34.9	36.3	34.9	33.5	33.5	32.1
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-075D-940-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1845.5	1845.5	1845.5	1845.5
2.5°	1869.3	1866.5	1858.1	1858.1
5°	1894.4	1887.4	1868.2	1854.2
7.5°	1900.3	1890.2	1865.1	1836.8
10°	1896.2	1887.4	1859.5	1822.8
12.5°	1887.8	1877.6	1851.1	1803.3
15°	1870.0	1854.2	1829.8	1770.4
17.5°	1841.7	1827.7	1798.7	1723.3
20°	1819.3	1805.4	1772.2	1688.4
22.5°	1792.8	1778.8	1744.2	1640.9
25°	1749.5	1728.5	1698.9	1559.2
27.5°	1701.3	1678.6	1636.3	1469.4
30°	1669.2	1639.5	1581.9	1403.8
32.5°	1634.3	1599.0	1500.9	1329.7
35°	1571.4	1541.7	1402.0	1185.5
37.5°	1503.0	1481.3	1312.6	1023.2
40°	1452.7	1435.2	1227.4	925.4
42.5°	1391.2	1386.3	1133.8	852.7
45°	1307.8	1307.8	1079.0	764.7
47.5°	1222.5	1223.2	1002.2	741.7
50°	1168.1	1150.6	946.3	740.3
52.5°	1112.2	1057.0	877.9	685.8
55°	1019.7	927.1	771.7	623.3
57.5°	926.4	808.4	606.9	602.7
60°	853.8	724.6	464.4	562.2
62.5°	784.0	629.6	362.5	520.3
65°	680.9	431.3	282.9	433.0
67.5°	582.8	273.8	215.1	312.9
70°	518.6	202.5	153.6	244.4
72.5°	452.9	159.2	129.9	210.9
75°	354.4	113.5	130.9	164.1
77.5°	265.4	86.3	117.0	114.5
80°	202.5	68.1	96.0	90.8
82.5°	150.9	54.1	68.1	67.0
85°	75.1	31.4	34.9	27.9
87.5°	30.7	15.4	12.6	7.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)