

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-830-1D-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-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

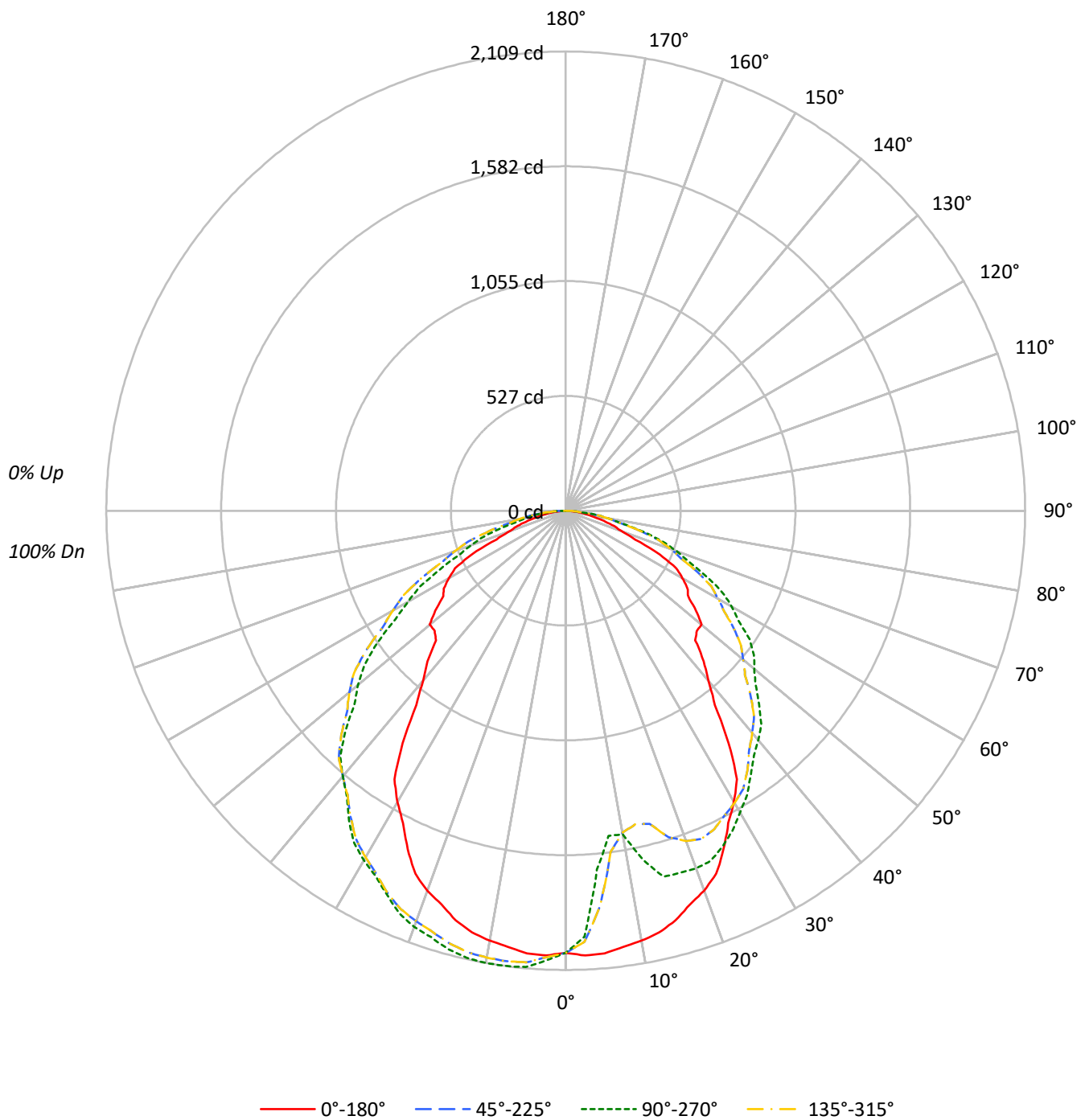
Lumens per Lamp: N/A
Luminaire Lumens: 5261.2 lumens
Efficiency: N/A
Efficacy: 98.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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

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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°	6244	6244	6244	6244
5°	6297	5106	6297	6493
10°	6262	4709	6262	6586
15°	6201	5541	6201	6635
20°	6079	5720	6079	6657
25°	5821	5775	5821	6596
30°	5484	5682	5484	6582
35°	4896	5560	4896	6512
40°	4087	5521	4087	6393
45°	3659	5455	3659	6216
50°	3896	5404	3896	5955
55°	3677	5520	3677	5654
60°	3804	5411	3804	5139
65°	3467	5172	3467	4627
70°	2418	4853	2418	4128
75°	2146	4291	2146	3584
80°	1769	3333	1769	3062
85°	1083	2304	1083	2710

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6349 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	183.0	3.5
10°-20°	520.1	9.9
20°-30°	803.8	15.3
30°-40°	960.4	18.3
40°-50°	966.6	18.4
50°-60°	839.2	16.0
60°-70°	594.0	11.3
70°-80°	314.2	6.0
80°-90°	79.9	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°	1507.0	28.6
0°-40°	2467.3	46.9
0°-60°	4273.0	81.2
0°-90°	5261.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5261.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2030	2030	2030	2030	2030	
5°	2040	1654	2040	2103	2040	193
15°	1948	1740	1948	2084	1948	548
25°	1715	1702	1715	1944	1715	787
35°	1304	1481	1304	1734	1304	805
45°	841	1254	841	1429	841	678
55°	686	1030	686	1054	686	631
65°	476	711	476	636	476	453
75°	181	361	181	302	181	190
85°	31	65	31	77	31	44
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°	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3
2.5°	2044.1	2028.7	2022.6	2010.3	1987.2	1974.9	1984.2	1968.8	1974.9	1958.0	1974.9
5°	2039.9	2005.3	1976.5	1928.5	1859.3	1778.6	1759.4	1709.5	1678.8	1653.8	1678.8
7.5°	2020.7	1961.5	1873.5	1726.8	1608.8	1551.2	1537.0	1522.8	1519.0	1506.3	1519.0
10°	2005.3	1924.6	1761.4	1596.2	1513.6	1486.7	1492.4	1498.2	1509.7	1507.8	1509.7
12.5°	1983.8	1860.1	1644.6	1530.1	1475.2	1474.4	1517.0	1593.5	1646.5	1643.0	1646.5
15°	1947.7	1736.4	1534.7	1461.7	1444.4	1532.8	1688.4	1724.9	1738.3	1740.2	1738.3
17.5°	1895.8	1615.4	1464.4	1416.4	1475.2	1667.2	1714.5	1731.0	1742.5	1743.3	1742.5
20°	1857.4	1553.9	1429.1	1396.4	1552.0	1674.9	1703.7	1724.9	1744.1	1747.9	1744.1
22.5°	1805.1	1510.9	1392.2	1382.6	1595.0	1667.2	1693.0	1724.9	1741.0	1740.2	1741.0
25°	1715.3	1457.9	1346.5	1367.6	1600.0	1626.9	1676.8	1698.0	1699.9	1701.8	1699.9
27.5°	1616.5	1411.4	1293.1	1377.6	1568.9	1588.1	1641.9	1652.6	1659.9	1656.9	1659.9
30°	1544.3	1379.1	1256.2	1379.1	1544.3	1555.8	1609.6	1617.3	1607.7	1600.0	1607.7
32.5°	1462.9	1339.2	1220.8	1368.4	1507.4	1523.6	1566.6	1563.5	1553.9	1547.8	1553.9
35°	1304.2	1271.6	1156.3	1333.0	1444.4	1465.6	1490.5	1488.6	1486.7	1480.9	1486.7
37.5°	1125.6	1191.7	1092.5	1278.1	1383.7	1382.2	1419.5	1427.5	1425.6	1418.3	1425.6
40°	1018.0	1125.6	1052.6	1235.1	1340.7	1325.3	1373.4	1383.0	1381.0	1375.3	1381.0
42.5°	938.1	1038.0	1006.5	1182.8	1288.5	1270.0	1328.8	1338.4	1333.4	1329.2	1333.4
45°	841.3	858.6	935.4	1098.7	1200.5	1198.6	1262.0	1271.6	1260.0	1254.3	1260.0
47.5°	815.9	692.2	857.8	1001.1	1113.3	1120.6	1188.6	1197.0	1186.7	1181.7	1186.7
50°	814.4	610.8	801.0	925.8	1056.4	1069.9	1140.9	1144.8	1131.3	1129.4	1131.3
52.5°	754.5	564.7	734.9	859.7	1007.3	1023.8	1088.7	1087.9	1086.8	1089.5	1086.8
55°	685.7	509.0	620.4	762.5	931.6	952.7	1010.3	1012.3	1025.7	1029.5	1025.7
57.5°	663.1	446.0	514.4	678.4	855.5	872.0	926.2	930.8	940.0	939.6	940.0
60°	618.5	401.4	451.4	626.2	797.1	818.3	866.3	874.0	881.6	879.7	881.6
62.5°	572.4	370.7	420.7	583.1	741.8	764.5	797.1	811.0	814.0	810.6	814.0
65°	476.4	330.4	372.6	514.8	656.9	681.9	703.0	712.6	714.5	710.7	714.5
67.5°	344.2	293.1	335.0	447.2	559.3	587.4	599.7	605.4	603.5	610.4	603.5
70°	268.9	267.0	307.3	399.5	499.4	524.4	532.1	537.8	535.9	539.7	535.9
72.5°	232.0	245.5	278.1	350.4	431.8	456.8	461.4	462.5	468.3	464.4	468.3
75°	180.6	209.4	230.5	276.6	338.1	355.3	357.3	359.2	355.3	361.1	355.3
77.5°	126.0	159.4	178.2	204.8	246.2	257.0	256.6	257.8	254.7	254.3	254.7
80°	99.9	121.0	138.3	155.6	186.3	194.0	192.1	190.2	190.2	188.2	190.2
82.5°	73.8	85.7	101.4	114.1	134.1	135.6	138.3	134.8	134.8	137.5	134.8
85°	30.7	40.3	51.9	57.6	65.3	67.2	63.4	69.1	65.3	65.3	65.3
87.5°	7.7	12.3	18.4	21.5	23.0	21.5	21.5	18.4	18.4	18.4	18.4
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°	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3
2.5°	1968.8	1984.2	1974.9	1987.2	2010.3	2022.6	2028.7	2044.1	2044.1	2053.3	2056.4
5°	1709.5	1759.4	1778.6	1859.3	1928.5	1976.5	2005.3	2039.9	2055.2	2076.4	2084.0
7.5°	1522.8	1537.0	1551.2	1608.8	1726.8	1873.5	1961.5	2020.7	2051.8	2079.4	2090.6
10°	1498.2	1492.4	1486.7	1513.6	1596.2	1761.4	1924.6	2005.3	2045.6	2076.4	2086.0
12.5°	1593.5	1517.0	1474.4	1475.2	1530.1	1644.6	1860.1	1983.8	2036.4	2065.6	2076.7
15°	1724.9	1688.4	1532.8	1444.4	1461.7	1534.7	1736.4	1947.7	2013.0	2039.9	2057.2
17.5°	1731.0	1714.5	1667.2	1475.2	1416.4	1464.4	1615.4	1895.8	1978.8	2010.7	2026.0
20°	1724.9	1703.7	1674.9	1552.0	1396.4	1429.1	1553.9	1857.4	1949.6	1986.1	2001.5
22.5°	1724.9	1693.0	1667.2	1595.0	1382.6	1392.2	1510.9	1805.1	1918.9	1956.9	1972.3
25°	1698.0	1676.8	1626.9	1600.0	1367.6	1346.5	1457.9	1715.3	1868.9	1901.6	1924.6
27.5°	1652.6	1641.9	1588.1	1568.9	1377.6	1293.1	1411.4	1616.5	1800.2	1846.6	1871.6
30°	1617.3	1609.6	1555.8	1544.3	1379.1	1256.2	1379.1	1544.3	1740.2	1803.6	1836.3
32.5°	1563.5	1566.6	1523.6	1507.4	1368.4	1220.8	1339.2	1462.9	1651.1	1759.1	1797.9
35°	1488.6	1490.5	1465.6	1444.4	1333.0	1156.3	1271.6	1304.2	1542.4	1696.0	1728.7
37.5°	1427.5	1419.5	1382.2	1383.7	1278.1	1092.5	1191.7	1125.6	1444.0	1629.6	1653.4
40°	1383.0	1373.4	1325.3	1340.7	1235.1	1052.6	1125.6	1018.0	1350.3	1578.9	1598.1
42.5°	1338.4	1328.8	1270.0	1288.5	1182.8	1006.5	1038.0	938.1	1247.4	1525.1	1530.5
45°	1271.6	1262.0	1198.6	1200.5	1098.7	935.4	858.6	841.3	1187.0	1438.7	1438.7
47.5°	1197.0	1188.6	1120.6	1113.3	1001.1	857.8	692.2	815.9	1102.5	1345.7	1344.9
50°	1144.8	1140.9	1069.9	1056.4	925.8	801.0	610.8	814.4	1041.1	1265.8	1285.0
52.5°	1087.9	1088.7	1023.8	1007.3	859.7	734.9	564.7	754.5	965.8	1162.8	1223.5
55°	1012.3	1010.3	952.7	931.6	762.5	620.4	509.0	685.7	849.0	1019.9	1121.7
57.5°	930.8	926.2	872.0	855.5	678.4	514.4	446.0	663.1	667.7	889.3	1019.2
60°	874.0	866.3	818.3	797.1	626.2	451.4	401.4	618.5	510.9	797.1	939.3
62.5°	811.0	797.1	764.5	741.8	583.1	420.7	370.7	572.4	398.8	692.6	862.4
65°	712.6	703.0	681.9	656.9	514.8	372.6	330.4	476.4	311.2	474.4	749.1
67.5°	605.4	599.7	587.4	559.3	447.2	335.0	293.1	344.2	236.6	301.2	641.2
70°	537.8	532.1	524.4	499.4	399.5	307.3	267.0	268.9	169.0	222.8	570.5
72.5°	462.5	461.4	456.8	431.8	350.4	278.1	245.5	232.0	142.9	175.2	498.3
75°	359.2	357.3	355.3	338.1	276.6	230.5	209.4	180.6	144.1	124.9	389.9
77.5°	257.8	256.6	257.0	246.2	204.8	178.2	159.4	126.0	128.7	94.9	292.0
80°	190.2	192.1	194.0	186.3	155.6	138.3	121.0	99.9	105.6	74.9	222.8
82.5°	134.8	138.3	135.6	134.1	114.1	101.4	85.7	73.8	74.9	59.5	166.0
85°	69.1	63.4	67.2	65.3	57.6	51.9	40.3	30.7	38.4	34.6	82.6
87.5°	18.4	21.5	21.5	23.0	21.5	18.4	12.3	7.7	13.8	16.9	33.8
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°	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3	2030.3
2.5°	2051.8	2051.8	2065.6	2068.7	2071.8	2067.1	2071.8	2068.7	2065.6	2051.8	2051.8
5°	2082.1	2082.1	2101.3	2107.1	2107.1	2103.3	2107.1	2107.1	2101.3	2082.1	2082.1
7.5°	2084.8	2087.9	2107.1	2111.3	2114.8	2109.0	2114.8	2111.3	2107.1	2087.9	2084.8
10°	2080.2	2087.9	2107.1	2112.9	2114.8	2109.0	2114.8	2112.9	2107.1	2087.9	2080.2
12.5°	2074.1	2080.2	2099.4	2103.6	2107.1	2102.9	2107.1	2103.6	2099.4	2080.2	2074.1
15°	2053.3	2061.0	2082.1	2086.0	2089.8	2084.0	2089.8	2086.0	2082.1	2061.0	2053.3
17.5°	2024.5	2034.1	2053.3	2059.5	2061.4	2054.1	2061.4	2059.5	2053.3	2034.1	2024.5
20°	2001.5	2011.1	2030.3	2037.9	2039.9	2034.1	2039.9	2037.9	2030.3	2011.1	2001.5
22.5°	1972.3	1988.0	2005.7	2008.8	2006.1	2000.3	2006.1	2008.8	2005.7	1988.0	1972.3
25°	1930.4	1943.8	1949.6	1949.6	1949.6	1943.8	1949.6	1949.6	1949.6	1943.8	1930.4
27.5°	1877.0	1883.9	1887.4	1890.4	1894.3	1890.4	1894.3	1890.4	1887.4	1883.9	1877.0
30°	1840.1	1836.3	1845.9	1853.6	1857.4	1853.6	1857.4	1853.6	1845.9	1836.3	1840.1
32.5°	1789.4	1791.7	1805.9	1810.5	1811.3	1807.5	1811.3	1810.5	1805.9	1791.7	1789.4
35°	1715.3	1724.9	1734.5	1738.3	1740.2	1734.5	1740.2	1738.3	1734.5	1724.9	1715.3
37.5°	1636.9	1653.8	1660.7	1656.5	1656.9	1650.7	1656.9	1656.5	1660.7	1653.8	1636.9
40°	1584.6	1600.0	1603.9	1598.1	1600.0	1592.3	1600.0	1598.1	1603.9	1600.0	1584.6
42.5°	1535.5	1547.8	1543.9	1536.6	1535.5	1532.4	1535.5	1536.6	1543.9	1547.8	1535.5
45°	1454.0	1459.8	1442.5	1436.7	1432.9	1429.1	1432.9	1436.7	1442.5	1459.8	1454.0
47.5°	1364.9	1357.2	1340.7	1331.9	1321.1	1313.8	1321.1	1331.9	1340.7	1357.2	1364.9
50°	1308.1	1285.0	1271.6	1250.4	1242.7	1244.7	1242.7	1250.4	1271.6	1285.0	1308.1
52.5°	1238.9	1211.2	1190.1	1172.1	1165.9	1164.8	1165.9	1172.1	1190.1	1211.2	1238.9
55°	1139.0	1096.8	1062.2	1052.6	1050.7	1054.5	1050.7	1052.6	1062.2	1096.8	1139.0
57.5°	1016.5	975.0	946.6	938.9	932.3	926.2	932.3	938.9	946.6	975.0	1016.5
60°	933.5	895.1	868.2	860.5	843.2	835.5	843.2	860.5	868.2	895.1	933.5
62.5°	859.7	813.6	792.9	777.5	764.9	752.6	764.9	777.5	792.9	813.6	859.7
65°	752.9	699.2	678.0	664.6	641.5	635.8	641.5	664.6	678.0	699.2	752.9
67.5°	636.2	589.3	562.8	544.7	530.1	529.8	530.1	544.7	562.8	589.3	636.2
70°	560.9	518.6	493.6	472.5	461.0	459.1	461.0	472.5	493.6	518.6	560.9
72.5°	487.1	446.4	424.5	404.9	394.9	393.0	394.9	404.9	424.5	446.4	487.1
75°	382.2	343.8	326.5	313.1	305.4	301.6	305.4	313.1	326.5	343.8	382.2
77.5°	282.7	251.6	242.8	229.0	222.4	222.0	222.4	229.0	242.8	251.6	282.7
80°	222.8	197.8	184.4	176.7	174.8	172.9	174.8	176.7	184.4	197.8	222.8
82.5°	161.3	147.1	138.3	133.7	133.3	129.8	133.3	133.7	138.3	147.1	161.3
85°	86.4	82.6	80.7	78.8	76.8	76.8	76.8	78.8	80.7	82.6	86.4
87.5°	35.3	36.9	36.9	38.4	40.0	38.4	40.0	38.4	36.9	36.9	35.3
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-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2030.3	2030.3	2030.3	2030.3
2.5°	2056.4	2053.3	2044.1	2044.1
5°	2084.0	2076.4	2055.2	2039.9
7.5°	2090.6	2079.4	2051.8	2020.7
10°	2086.0	2076.4	2045.6	2005.3
12.5°	2076.7	2065.6	2036.4	1983.8
15°	2057.2	2039.9	2013.0	1947.7
17.5°	2026.0	2010.7	1978.8	1895.8
20°	2001.5	1986.1	1949.6	1857.4
22.5°	1972.3	1956.9	1918.9	1805.1
25°	1924.6	1901.6	1868.9	1715.3
27.5°	1871.6	1846.6	1800.2	1616.5
30°	1836.3	1803.6	1740.2	1544.3
32.5°	1797.9	1759.1	1651.1	1462.9
35°	1728.7	1696.0	1542.4	1304.2
37.5°	1653.4	1629.6	1444.0	1125.6
40°	1598.1	1578.9	1350.3	1018.0
42.5°	1530.5	1525.1	1247.4	938.1
45°	1438.7	1438.7	1187.0	841.3
47.5°	1344.9	1345.7	1102.5	815.9
50°	1285.0	1265.8	1041.1	814.4
52.5°	1223.5	1162.8	965.8	754.5
55°	1121.7	1019.9	849.0	685.7
57.5°	1019.2	889.3	667.7	663.1
60°	939.3	797.1	510.9	618.5
62.5°	862.4	692.6	398.8	572.4
65°	749.1	474.4	311.2	476.4
67.5°	641.2	301.2	236.6	344.2
70°	570.5	222.8	169.0	268.9
72.5°	498.3	175.2	142.9	232.0
75°	389.9	124.9	144.1	180.6
77.5°	292.0	94.9	128.7	126.0
80°	222.8	74.9	105.6	99.9
82.5°	166.0	59.5	74.9	73.8
85°	82.6	34.6	38.4	30.7
87.5°	33.8	16.9	13.8	7.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)