

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-840-1D-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-840-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

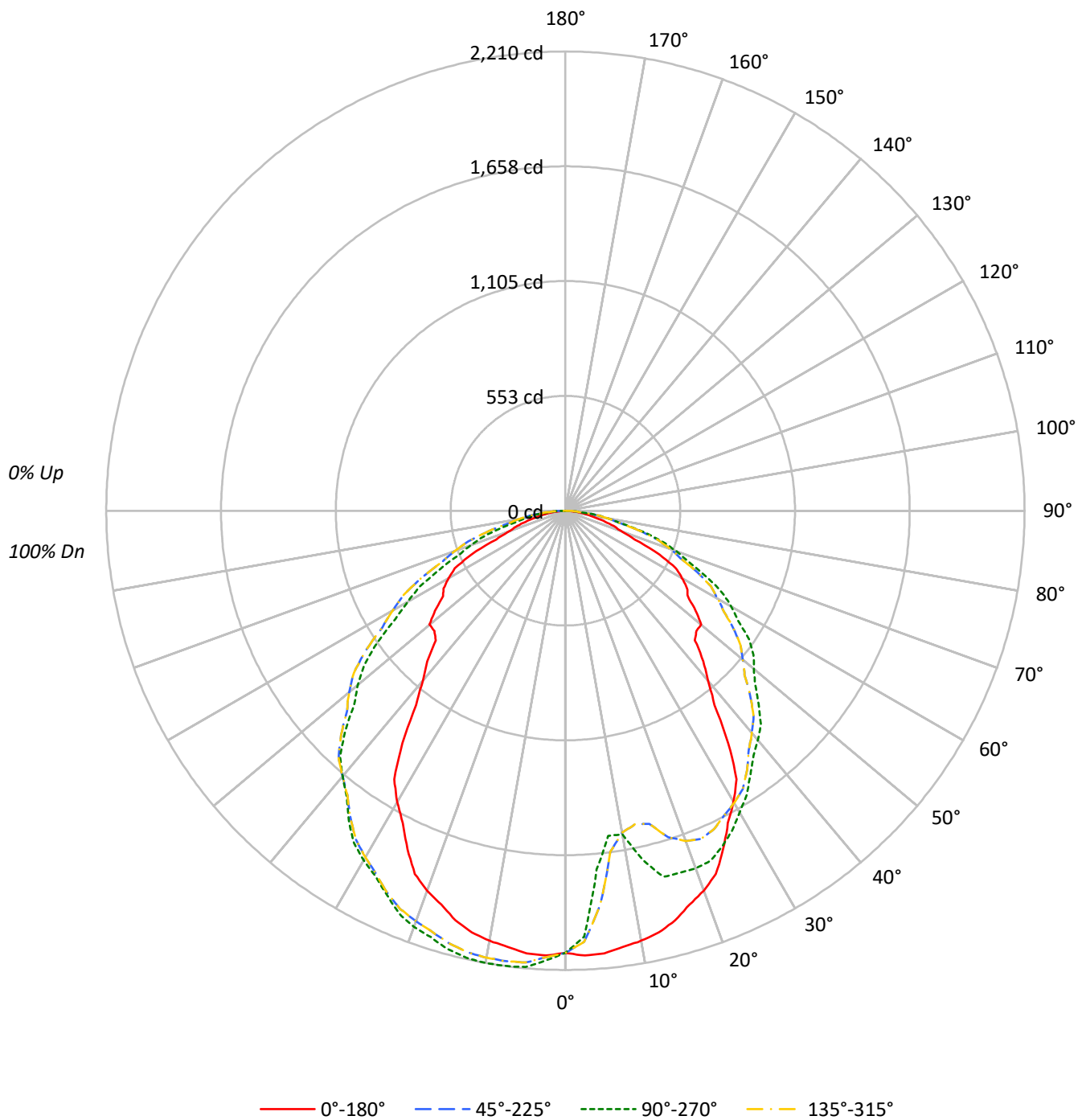
Lumens per Lamp: N/A
Luminaire Lumens: 5513.4 lumens
Efficiency: N/A
Efficacy: 99.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

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

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-100D-840-1D-UNV-STD-W-6

Luminous Intensity Polar Plot



TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-100D-840-1D-UNV-STD-W-6

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	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°	13086	13086	13086	13086
5°	13199	10701	13199	13609
10°	13125	9869	13125	13804
15°	12997	11613	12997	13907
20°	12740	11989	12740	13952
25°	12199	12103	12199	13824
30°	11494	11908	11494	13796
35°	10262	11653	10262	13648
40°	8566	11572	8566	13398
45°	7669	11433	7669	13027
50°	8167	11326	8167	12481
55°	7706	11570	7706	11851
60°	7973	11341	7973	10771
65°	7265	10840	7265	9697
70°	5068	10172	5068	8652
75°	4496	8993	4496	7510
80°	3709	6989	3709	6418
85°	2272	4827	2272	5681

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 13307 cd/sqm

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-100D-840-1D-UNV-STD-W-6

ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	191.8	3.5
10°-20°	545.1	9.9
20°-30°	842.3	15.3
30°-40°	1006.4	18.3
40°-50°	1012.9	18.4
50°-60°	879.4	16.0
60°-70°	622.5	11.3
70°-80°	329.3	6.0
80°-90°	83.8	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°	1579.2	28.6
0°-40°	2585.6	46.9
0°-60°	4477.9	81.2
0°-90°	5513.4	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5513.4	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2128	2128	2128	2128	2128	
5°	2138	1733	2138	2204	2138	203
15°	2041	1824	2041	2184	2041	574
25°	1798	1783	1798	2037	1798	824
35°	1367	1552	1367	1818	1367	844
45°	882	1314	882	1498	882	710
55°	719	1079	719	1105	719	661
65°	499	745	499	666	499	475
75°	189	378	189	316	189	200
85°	32	68	32	80	32	46
90°	0	0	0	0	0	

TEST NUMBER:

CATALOG NUMBER: SQ4-FA-0U-100D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	30°	40°	50°	60°	70°	80°	90°	100°
0°	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6
2.5°	2142.1	2126.0	2119.5	2106.7	2082.5	2069.6	2079.3	2063.2	2069.6	2051.9	2069.6
5°	2137.7	2101.4	2071.2	2020.9	1948.5	1863.9	1843.8	1791.5	1759.2	1733.1	1759.2
7.5°	2117.5	2055.5	1963.3	1809.6	1686.0	1625.6	1610.7	1595.8	1591.8	1578.5	1591.8
10°	2101.4	2016.9	1845.8	1672.7	1586.1	1558.0	1564.0	1570.0	1582.1	1580.1	1582.1
12.5°	2078.9	1949.3	1723.4	1603.4	1545.9	1545.1	1589.8	1669.9	1725.4	1721.8	1725.4
15°	2041.0	1819.6	1608.3	1531.8	1513.7	1606.3	1769.3	1807.6	1821.6	1823.7	1821.6
17.5°	1986.7	1692.8	1534.6	1484.3	1545.9	1747.2	1796.7	1814.0	1826.1	1826.9	1826.1
20°	1946.4	1628.4	1497.6	1463.4	1626.4	1755.2	1785.4	1807.6	1827.7	1831.7	1827.7
22.5°	1891.7	1583.3	1458.9	1448.9	1671.5	1747.2	1774.1	1807.6	1824.5	1823.7	1824.5
25°	1797.5	1527.8	1411.0	1433.2	1676.7	1704.9	1757.2	1779.4	1781.4	1783.4	1781.4
27.5°	1694.0	1479.1	1355.1	1443.6	1644.1	1664.2	1720.6	1731.9	1739.5	1736.3	1739.5
30°	1618.3	1445.2	1316.4	1445.2	1618.3	1630.4	1686.8	1694.8	1684.8	1676.7	1684.8
32.5°	1533.0	1403.4	1279.4	1434.0	1579.7	1596.6	1641.7	1638.5	1628.4	1622.0	1628.4
35°	1366.7	1332.5	1211.7	1396.9	1513.7	1535.8	1562.0	1560.0	1558.0	1551.9	1558.0
37.5°	1179.5	1248.8	1144.9	1339.4	1450.1	1448.5	1487.5	1496.0	1493.9	1486.3	1493.9
40°	1066.8	1179.5	1103.1	1294.3	1405.0	1388.9	1439.2	1449.3	1447.3	1441.2	1447.3
42.5°	983.1	1087.8	1054.7	1239.5	1350.2	1330.9	1392.5	1402.6	1397.3	1392.9	1397.3
45°	881.6	899.8	980.3	1151.4	1258.0	1256.0	1322.5	1332.5	1320.4	1314.4	1320.4
47.5°	855.1	725.4	898.9	1049.1	1166.7	1174.3	1245.6	1254.4	1243.5	1238.3	1243.5
50°	853.5	640.1	839.4	970.2	1107.1	1121.2	1195.6	1199.7	1185.6	1183.6	1185.6
52.5°	790.7	591.8	770.1	901.0	1055.5	1072.9	1140.9	1140.1	1138.9	1141.7	1138.9
55°	718.6	533.4	650.2	799.1	976.2	998.4	1058.8	1060.8	1074.9	1078.9	1074.9
57.5°	694.8	467.4	539.0	710.9	896.5	913.8	970.6	975.4	985.1	984.7	985.1
60°	648.1	420.7	473.0	656.2	835.3	857.5	907.8	915.9	923.9	921.9	923.9
62.5°	599.8	388.5	440.8	611.1	777.4	801.1	835.3	849.8	853.1	849.4	853.1
65°	499.2	346.2	390.5	539.4	688.4	714.6	736.7	746.8	748.8	744.8	748.8
67.5°	360.7	307.2	351.0	468.6	586.1	615.5	628.4	634.5	632.4	639.7	632.4
70°	281.8	279.8	322.1	418.7	523.3	549.5	557.6	563.6	561.6	565.6	561.6
72.5°	243.2	257.2	291.5	367.1	452.5	478.7	483.5	484.7	490.7	486.7	490.7
75°	189.2	219.4	241.5	289.9	354.3	372.4	374.4	376.4	372.4	378.4	372.4
77.5°	132.0	167.1	186.8	214.6	258.0	269.3	268.9	270.1	266.9	266.5	266.9
80°	104.7	126.8	144.9	163.0	195.2	203.3	201.3	199.3	199.3	197.3	199.3
82.5°	77.3	89.8	106.3	119.6	140.5	142.1	144.9	141.3	141.3	144.1	141.3
85°	32.2	42.3	54.3	60.4	68.4	70.5	66.4	72.5	68.4	68.4	68.4
87.5°	8.1	12.9	19.3	22.5	24.2	22.5	22.5	19.3	19.3	19.3	19.3
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-100D-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6
2.5°	2063.2	2079.3	2069.6	2082.5	2106.7	2119.5	2126.0	2142.1	2142.1	2151.8	2155.0
5°	1791.5	1843.8	1863.9	1948.5	2020.9	2071.2	2101.4	2137.7	2153.8	2175.9	2184.0
7.5°	1595.8	1610.7	1625.6	1686.0	1809.6	1963.3	2055.5	2117.5	2150.1	2179.1	2190.8
10°	1570.0	1564.0	1558.0	1586.1	1672.7	1845.8	2016.9	2101.4	2143.7	2175.9	2186.0
12.5°	1669.9	1589.8	1545.1	1545.9	1603.4	1723.4	1949.3	2078.9	2134.0	2164.6	2176.3
15°	1807.6	1769.3	1606.3	1513.7	1531.8	1608.3	1819.6	2041.0	2109.5	2137.7	2155.8
17.5°	1814.0	1796.7	1747.2	1545.9	1484.3	1534.6	1692.8	1986.7	2073.7	2107.1	2123.2
20°	1807.6	1785.4	1755.2	1626.4	1463.4	1497.6	1628.4	1946.4	2043.1	2081.3	2097.4
22.5°	1807.6	1774.1	1747.2	1671.5	1448.9	1458.9	1583.3	1891.7	2010.9	2050.7	2066.8
25°	1779.4	1757.2	1704.9	1676.7	1433.2	1411.0	1527.8	1797.5	1958.5	1992.7	2016.9
27.5°	1731.9	1720.6	1664.2	1644.1	1443.6	1355.1	1479.1	1694.0	1886.5	1935.2	1961.3
30°	1694.8	1686.8	1630.4	1618.3	1445.2	1316.4	1445.2	1618.3	1823.7	1890.1	1924.3
32.5°	1638.5	1641.7	1596.6	1579.7	1434.0	1279.4	1403.4	1533.0	1730.3	1843.4	1884.0
35°	1560.0	1562.0	1535.8	1513.7	1396.9	1211.7	1332.5	1366.7	1616.3	1777.4	1811.6
37.5°	1496.0	1487.5	1448.5	1450.1	1339.4	1144.9	1248.8	1179.5	1513.3	1707.7	1732.7
40°	1449.3	1439.2	1388.9	1405.0	1294.3	1103.1	1179.5	1066.8	1415.0	1654.6	1674.7
42.5°	1402.6	1392.5	1330.9	1350.2	1239.5	1054.7	1087.8	983.1	1307.2	1598.2	1603.9
45°	1332.5	1322.5	1256.0	1258.0	1151.4	980.3	899.8	881.6	1244.0	1507.6	1507.6
47.5°	1254.4	1245.6	1174.3	1166.7	1049.1	898.9	725.4	855.1	1155.4	1410.2	1409.4
50°	1199.7	1195.6	1121.2	1107.1	970.2	839.4	640.1	853.5	1091.0	1326.5	1346.6
52.5°	1140.1	1140.9	1072.9	1055.5	901.0	770.1	591.8	790.7	1012.1	1218.6	1282.2
55°	1060.8	1058.8	998.4	976.2	799.1	650.2	533.4	718.6	889.7	1068.8	1175.5
57.5°	975.4	970.6	913.8	896.5	710.9	539.0	467.4	694.8	699.7	932.0	1068.0
60°	915.9	907.8	857.5	835.3	656.2	473.0	420.7	648.1	535.4	835.3	984.3
62.5°	849.8	835.3	801.1	777.4	611.1	440.8	388.5	599.8	417.9	725.8	903.8
65°	746.8	736.7	714.6	688.4	539.4	390.5	346.2	499.2	326.1	497.2	785.0
67.5°	634.5	628.4	615.5	586.1	468.6	351.0	307.2	360.7	248.0	315.6	671.9
70°	563.6	557.6	549.5	523.3	418.7	322.1	279.8	281.8	177.1	233.5	597.8
72.5°	484.7	483.5	478.7	452.5	367.1	291.5	257.2	243.2	149.8	183.6	522.1
75°	376.4	374.4	372.4	354.3	289.9	241.5	219.4	189.2	151.0	130.8	408.6
77.5°	270.1	268.9	269.3	258.0	214.6	186.8	167.1	132.0	134.9	99.4	306.0
80°	199.3	201.3	203.3	195.2	163.0	144.9	126.8	104.7	110.7	78.5	233.5
82.5°	141.3	144.9	142.1	140.5	119.6	106.3	89.8	77.3	78.5	62.4	173.9
85°	72.5	66.4	70.5	68.4	60.4	54.3	42.3	32.2	40.3	36.2	86.6
87.5°	19.3	22.5	22.5	24.2	22.5	19.3	12.9	8.1	14.5	17.7	35.4
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-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	220°	230°	240°	250°	260°	270°	280°	290°	300°	310°	320°
0°	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6	2127.6
2.5°	2150.1	2150.1	2164.6	2167.9	2171.1	2166.2	2171.1	2167.9	2164.6	2150.1	2150.1
5°	2181.9	2181.9	2202.1	2208.1	2208.1	2204.1	2208.1	2208.1	2202.1	2181.9	2181.9
7.5°	2184.8	2188.0	2208.1	2212.5	2216.2	2210.1	2216.2	2212.5	2208.1	2188.0	2184.8
10°	2179.9	2188.0	2208.1	2214.2	2216.2	2210.1	2216.2	2214.2	2208.1	2188.0	2179.9
12.5°	2173.5	2179.9	2200.1	2204.5	2208.1	2203.7	2208.1	2204.5	2200.1	2179.9	2173.5
15°	2151.8	2159.8	2181.9	2186.0	2190.0	2184.0	2190.0	2186.0	2181.9	2159.8	2151.8
17.5°	2121.6	2131.6	2151.8	2158.2	2160.2	2152.6	2160.2	2158.2	2151.8	2131.6	2121.6
20°	2097.4	2107.5	2127.6	2135.7	2137.7	2131.6	2137.7	2135.7	2127.6	2107.5	2097.4
22.5°	2066.8	2083.3	2101.8	2105.1	2102.2	2096.2	2102.2	2105.1	2101.8	2083.3	2066.8
25°	2022.9	2037.0	2043.1	2043.1	2043.1	2037.0	2043.1	2043.1	2043.1	2037.0	2022.9
27.5°	1967.0	1974.2	1977.8	1981.1	1985.1	1981.1	1985.1	1981.1	1977.8	1974.2	1967.0
30°	1928.3	1924.3	1934.4	1942.4	1946.4	1942.4	1946.4	1942.4	1934.4	1924.3	1928.3
32.5°	1875.2	1877.6	1892.5	1897.3	1898.1	1894.1	1898.1	1897.3	1892.5	1877.6	1875.2
35°	1797.5	1807.6	1817.6	1821.6	1823.7	1817.6	1823.7	1821.6	1817.6	1807.6	1797.5
37.5°	1715.4	1733.1	1740.3	1735.9	1736.3	1729.9	1736.3	1735.9	1740.3	1733.1	1715.4
40°	1660.6	1676.7	1680.7	1674.7	1676.7	1668.7	1676.7	1674.7	1680.7	1676.7	1660.6
42.5°	1609.1	1622.0	1617.9	1610.3	1609.1	1605.9	1609.1	1610.3	1617.9	1622.0	1609.1
45°	1523.7	1529.8	1511.7	1505.6	1501.6	1497.6	1501.6	1505.6	1511.7	1529.8	1523.7
47.5°	1430.3	1422.3	1405.0	1395.7	1384.4	1376.8	1384.4	1395.7	1405.0	1422.3	1430.3
50°	1370.8	1346.6	1332.5	1310.4	1302.3	1304.3	1302.3	1310.4	1332.5	1346.6	1370.8
52.5°	1298.3	1269.3	1247.2	1228.3	1221.8	1220.6	1221.8	1228.3	1247.2	1269.3	1298.3
55°	1193.6	1149.3	1113.1	1103.1	1101.0	1105.1	1101.0	1103.1	1113.1	1149.3	1193.6
57.5°	1065.2	1021.7	991.9	983.9	977.0	970.6	977.0	983.9	991.9	1021.7	1065.2
60°	978.3	938.0	909.8	901.8	883.6	875.6	883.6	901.8	909.8	938.0	978.3
62.5°	901.0	852.6	830.9	814.8	801.5	788.6	801.5	814.8	830.9	852.6	901.0
65°	789.0	732.7	710.5	696.5	672.3	666.3	672.3	696.5	710.5	732.7	789.0
67.5°	666.7	617.5	589.8	570.8	555.6	555.1	555.6	570.8	589.8	617.5	666.7
70°	587.8	543.5	517.3	495.2	483.1	481.1	483.1	495.2	517.3	543.5	587.8
72.5°	510.5	467.8	444.8	424.3	413.8	411.8	413.8	424.3	444.8	467.8	510.5
75°	400.6	360.3	342.2	328.1	320.0	316.0	320.0	328.1	342.2	360.3	400.6
77.5°	296.3	263.7	254.4	239.9	233.1	232.7	233.1	239.9	254.4	263.7	296.3
80°	233.5	207.3	193.2	185.2	183.2	181.2	183.2	185.2	193.2	207.3	233.5
82.5°	169.1	154.2	144.9	140.1	139.7	136.1	139.7	140.1	144.9	154.2	169.1
85°	90.6	86.6	84.5	82.5	80.5	80.5	80.5	82.5	84.5	86.6	90.6
87.5°	37.0	38.6	38.6	40.3	41.9	40.3	41.9	40.3	38.6	38.6	37.0
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-840-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2127.6	2127.6	2127.6	2127.6
2.5°	2155.0	2151.8	2142.1	2142.1
5°	2184.0	2175.9	2153.8	2137.7
7.5°	2190.8	2179.1	2150.1	2117.5
10°	2186.0	2175.9	2143.7	2101.4
12.5°	2176.3	2164.6	2134.0	2078.9
15°	2155.8	2137.7	2109.5	2041.0
17.5°	2123.2	2107.1	2073.7	1986.7
20°	2097.4	2081.3	2043.1	1946.4
22.5°	2066.8	2050.7	2010.9	1891.7
25°	2016.9	1992.7	1958.5	1797.5
27.5°	1961.3	1935.2	1886.5	1694.0
30°	1924.3	1890.1	1823.7	1618.3
32.5°	1884.0	1843.4	1730.3	1533.0
35°	1811.6	1777.4	1616.3	1366.7
37.5°	1732.7	1707.7	1513.3	1179.5
40°	1674.7	1654.6	1415.0	1066.8
42.5°	1603.9	1598.2	1307.2	983.1
45°	1507.6	1507.6	1244.0	881.6
47.5°	1409.4	1410.2	1155.4	855.1
50°	1346.6	1326.5	1091.0	853.5
52.5°	1282.2	1218.6	1012.1	790.7
55°	1175.5	1068.8	889.7	718.6
57.5°	1068.0	932.0	699.7	694.8
60°	984.3	835.3	535.4	648.1
62.5°	903.8	725.8	417.9	599.8
65°	785.0	497.2	326.1	499.2
67.5°	671.9	315.6	248.0	360.7
70°	597.8	233.5	177.1	281.8
72.5°	522.1	183.6	149.8	243.2
75°	408.6	130.8	151.0	189.2
77.5°	306.0	99.4	134.9	132.0
80°	233.5	78.5	110.7	104.7
82.5°	173.9	62.4	78.5	77.3
85°	86.6	36.2	40.3	32.2
87.5°	35.4	17.7	14.5	8.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)