

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-835-1D-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-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

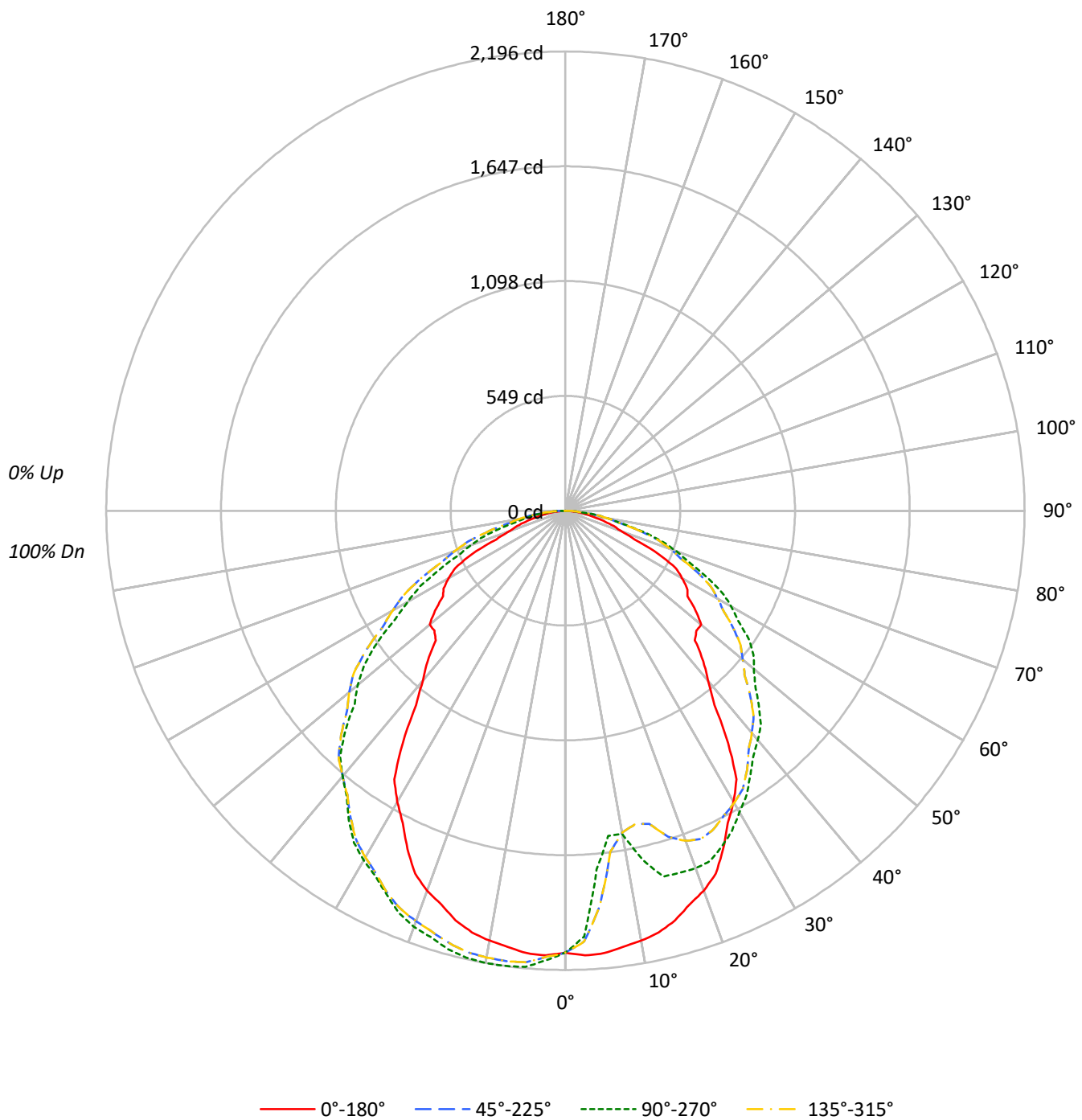
Lumens per Lamp: N/A
Luminaire Lumens: 5477.1 lumens
Efficiency: N/A
Efficacy: 100.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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				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°	9750	9750	9750	9750
5°	9834	7972	9834	10139
10°	9779	7353	9779	10284
15°	9683	8652	9683	10361
20°	9492	8933	9492	10396
25°	9089	9017	9089	10300
30°	8564	8873	8564	10278
35°	7646	8682	7646	10168
40°	6382	8622	6382	9983
45°	5714	8518	5714	9706
50°	6084	8438	6084	9299
55°	5742	8620	5742	8829
60°	5941	8449	5941	8025
65°	5413	8075	5413	7225
70°	3775	7579	3775	6446
75°	3351	6700	3351	5595
80°	2763	5207	2763	4782
85°	1694	3599	1694	4234

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 9914 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	190.5	3.5
10°-20°	541.5	9.9
20°-30°	836.8	15.3
30°-40°	999.7	18.3
40°-50°	1006.2	18.4
50°-60°	873.6	16.0
60°-70°	618.4	11.3
70°-80°	327.1	6.0
80°-90°	83.2	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°	1568.8	28.6
0°-40°	2568.5	46.9
0°-60°	4448.3	81.2
0°-90°	5477.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5477.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2114	2114	2114	2114	2114	
5°	2124	1722	2124	2190	2124	201
15°	2028	1812	2028	2170	2028	570
25°	1786	1772	1786	2024	1786	819
35°	1358	1542	1358	1806	1358	838
45°	876	1306	876	1488	876	705
55°	714	1072	714	1098	714	657
65°	496	740	496	662	496	472
75°	188	376	188	314	188	198
85°	32	68	32	80	32	46
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°	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6
2.5°	2128.0	2112.0	2105.6	2092.8	2068.8	2056.0	2065.6	2049.6	2056.0	2038.4	2056.0
5°	2123.6	2087.6	2057.6	2007.6	1935.6	1851.6	1831.6	1779.6	1747.6	1721.6	1747.6
7.5°	2103.6	2042.0	1950.4	1797.6	1674.9	1614.9	1600.1	1585.3	1581.3	1568.1	1581.3
10°	2087.6	2003.6	1833.6	1661.7	1575.7	1547.7	1553.7	1559.7	1571.7	1569.7	1571.7
12.5°	2065.2	1936.4	1712.0	1592.9	1535.7	1534.9	1579.3	1658.9	1714.0	1710.4	1714.0
15°	2027.6	1807.6	1597.7	1521.7	1503.7	1595.7	1757.6	1795.6	1809.6	1811.6	1809.6
17.5°	1973.6	1681.6	1524.5	1474.5	1535.7	1735.6	1784.8	1802.0	1814.0	1814.8	1814.0
20°	1933.6	1617.7	1487.7	1453.7	1615.7	1743.6	1773.6	1795.6	1815.6	1819.6	1815.6
22.5°	1879.2	1572.9	1449.3	1439.3	1660.5	1735.6	1762.4	1795.6	1812.4	1811.6	1812.4
25°	1785.6	1517.7	1401.7	1423.7	1665.7	1693.6	1745.6	1767.6	1769.6	1771.6	1769.6
27.5°	1682.8	1469.3	1346.1	1434.1	1633.3	1653.3	1709.2	1720.4	1728.0	1724.8	1728.0
30°	1607.7	1435.7	1307.7	1435.7	1607.7	1619.7	1675.7	1683.6	1673.7	1665.7	1673.7
32.5°	1522.9	1394.1	1270.9	1424.5	1569.3	1586.1	1630.9	1627.7	1617.7	1611.3	1617.7
35°	1357.7	1323.7	1203.7	1387.7	1503.7	1525.7	1551.7	1549.7	1547.7	1541.7	1547.7
37.5°	1171.8	1240.5	1137.4	1330.5	1440.5	1438.9	1477.7	1486.1	1484.1	1476.5	1484.1
40°	1059.8	1171.8	1095.8	1285.7	1395.7	1379.7	1429.7	1439.7	1437.7	1431.7	1437.7
42.5°	976.6	1080.6	1047.8	1231.3	1341.3	1322.1	1383.3	1393.3	1388.1	1383.7	1388.1
45°	875.8	893.8	973.8	1143.8	1249.7	1247.7	1313.7	1323.7	1311.7	1305.7	1311.7
47.5°	849.4	720.6	893.0	1042.2	1159.0	1166.6	1237.3	1246.1	1235.3	1230.1	1235.3
50°	847.8	635.9	833.8	963.8	1099.8	1113.8	1187.8	1191.8	1177.8	1175.8	1177.8
52.5°	785.4	587.9	765.0	895.0	1048.6	1065.8	1133.4	1132.6	1131.4	1134.2	1131.4
55°	713.9	529.9	645.9	793.8	969.8	991.8	1051.8	1053.8	1067.8	1071.8	1067.8
57.5°	690.3	464.3	535.5	706.3	890.6	907.8	964.2	969.0	978.6	978.2	978.6
60°	643.9	417.9	469.9	651.9	829.8	851.8	901.8	909.8	917.8	915.8	917.8
62.5°	595.9	385.9	437.9	607.1	772.2	795.8	829.8	844.2	847.4	843.8	847.4
65°	495.9	343.9	387.9	535.9	683.9	709.9	731.8	741.8	743.8	739.8	743.8
67.5°	358.3	305.1	348.7	465.5	582.3	611.5	624.3	630.3	628.3	635.5	628.3
70°	279.9	277.9	319.9	415.9	519.9	545.9	553.9	559.9	557.9	561.9	557.9
72.5°	241.5	255.5	289.5	364.7	449.5	475.5	480.3	481.5	487.5	483.5	487.5
75°	188.0	218.0	239.9	287.9	351.9	369.9	371.9	373.9	369.9	375.9	369.9
77.5°	131.2	166.0	185.6	213.2	256.3	267.5	267.1	268.3	265.1	264.7	265.1
80°	104.0	126.0	144.0	162.0	194.0	202.0	200.0	198.0	198.0	196.0	198.0
82.5°	76.8	89.2	105.6	118.8	139.6	141.2	144.0	140.4	140.4	143.2	140.4
85°	32.0	42.0	54.0	60.0	68.0	70.0	66.0	72.0	68.0	68.0	68.0
87.5°	8.0	12.8	19.2	22.4	24.0	22.4	22.4	19.2	19.2	19.2	19.2
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°	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6
2.5°	2049.6	2065.6	2056.0	2068.8	2092.8	2105.6	2112.0	2128.0	2128.0	2137.6	2140.8
5°	1779.6	1831.6	1851.6	1935.6	2007.6	2057.6	2087.6	2123.6	2139.6	2161.5	2169.5
7.5°	1585.3	1600.1	1614.9	1674.9	1797.6	1950.4	2042.0	2103.6	2136.0	2164.7	2176.3
10°	1559.7	1553.7	1547.7	1575.7	1661.7	1833.6	2003.6	2087.6	2129.6	2161.5	2171.5
12.5°	1658.9	1579.3	1534.9	1535.7	1592.9	1712.0	1936.4	2065.2	2120.0	2150.4	2161.9
15°	1795.6	1757.6	1595.7	1503.7	1521.7	1597.7	1807.6	2027.6	2095.6	2123.6	2141.6
17.5°	1802.0	1784.8	1735.6	1535.7	1474.5	1524.5	1681.6	1973.6	2060.0	2093.2	2109.2
20°	1795.6	1773.6	1743.6	1615.7	1453.7	1487.7	1617.7	1933.6	2029.6	2067.6	2083.6
22.5°	1795.6	1762.4	1735.6	1660.5	1439.3	1449.3	1572.9	1879.2	1997.6	2037.2	2053.2
25°	1767.6	1745.6	1693.6	1665.7	1423.7	1401.7	1517.7	1785.6	1945.6	1979.6	2003.6
27.5°	1720.4	1709.2	1653.3	1633.3	1434.1	1346.1	1469.3	1682.8	1874.0	1922.4	1948.4
30°	1683.6	1675.7	1619.7	1607.7	1435.7	1307.7	1435.7	1607.7	1811.6	1877.6	1911.6
32.5°	1627.7	1630.9	1586.1	1569.3	1424.5	1270.9	1394.1	1522.9	1718.8	1831.2	1871.6
35°	1549.7	1551.7	1525.7	1503.7	1387.7	1203.7	1323.7	1357.7	1605.7	1765.6	1799.6
37.5°	1486.1	1477.7	1438.9	1440.5	1330.5	1137.4	1240.5	1171.8	1503.3	1696.4	1721.2
40°	1439.7	1429.7	1379.7	1395.7	1285.7	1095.8	1171.8	1059.8	1405.7	1643.7	1663.7
42.5°	1393.3	1383.3	1322.1	1341.3	1231.3	1047.8	1080.6	976.6	1298.5	1587.7	1593.3
45°	1323.7	1313.7	1247.7	1249.7	1143.8	973.8	893.8	875.8	1235.7	1497.7	1497.7
47.5°	1246.1	1237.3	1166.6	1159.0	1042.2	893.0	720.6	849.4	1147.8	1400.9	1400.1
50°	1191.8	1187.8	1113.8	1099.8	963.8	833.8	635.9	847.8	1083.8	1317.7	1337.7
52.5°	1132.6	1133.4	1065.8	1048.6	895.0	765.0	587.9	785.4	1005.4	1210.5	1273.7
55°	1053.8	1051.8	991.8	969.8	793.8	645.9	529.9	713.9	883.8	1061.8	1167.8
57.5°	969.0	964.2	907.8	890.6	706.3	535.5	464.3	690.3	695.1	925.8	1061.0
60°	909.8	901.8	851.8	829.8	651.9	469.9	417.9	643.9	531.9	829.8	977.8
62.5°	844.2	829.8	795.8	772.2	607.1	437.9	385.9	595.9	415.1	721.0	897.8
65°	741.8	731.8	709.9	683.9	535.9	387.9	343.9	495.9	323.9	493.9	779.8
67.5°	630.3	624.3	611.5	582.3	465.5	348.7	305.1	358.3	246.3	313.5	667.5
70°	559.9	553.9	545.9	519.9	415.9	319.9	277.9	279.9	176.0	232.0	593.9
72.5°	481.5	480.3	475.5	449.5	364.7	289.5	255.5	241.5	148.8	182.4	518.7
75°	373.9	371.9	369.9	351.9	287.9	239.9	218.0	188.0	150.0	130.0	405.9
77.5°	268.3	267.1	267.5	256.3	213.2	185.6	166.0	131.2	134.0	98.8	303.9
80°	198.0	200.0	202.0	194.0	162.0	144.0	126.0	104.0	110.0	78.0	232.0
82.5°	140.4	144.0	141.2	139.6	118.8	105.6	89.2	76.8	78.0	62.0	172.8
85°	72.0	66.0	70.0	68.0	60.0	54.0	42.0	32.0	40.0	36.0	86.0
87.5°	19.2	22.4	22.4	24.0	22.4	19.2	12.8	8.0	14.4	17.6	35.2
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°	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6	2113.6
2.5°	2136.0	2136.0	2150.4	2153.6	2156.7	2152.0	2156.7	2153.6	2150.4	2136.0	2136.0
5°	2167.5	2167.5	2187.5	2193.5	2193.5	2189.5	2193.5	2193.5	2187.5	2167.5	2167.5
7.5°	2170.3	2173.5	2193.5	2197.9	2201.5	2195.5	2201.5	2197.9	2193.5	2173.5	2170.3
10°	2165.5	2173.5	2193.5	2199.5	2201.5	2195.5	2201.5	2199.5	2193.5	2173.5	2165.5
12.5°	2159.1	2165.5	2185.5	2189.9	2193.5	2189.1	2193.5	2189.9	2185.5	2165.5	2159.1
15°	2137.6	2145.6	2167.5	2171.5	2175.5	2169.5	2175.5	2171.5	2167.5	2145.6	2137.6
17.5°	2107.6	2117.6	2137.6	2144.0	2146.0	2138.4	2146.0	2144.0	2137.6	2117.6	2107.6
20°	2083.6	2093.6	2113.6	2121.6	2123.6	2117.6	2123.6	2121.6	2113.6	2093.6	2083.6
22.5°	2053.2	2069.6	2088.0	2091.2	2088.4	2082.4	2088.4	2091.2	2088.0	2069.6	2053.2
25°	2009.6	2023.6	2029.6	2029.6	2029.6	2023.6	2029.6	2029.6	2029.6	2023.6	2009.6
27.5°	1954.0	1961.2	1964.8	1968.0	1972.0	1968.0	1972.0	1968.0	1964.8	1961.2	1954.0
30°	1915.6	1911.6	1921.6	1929.6	1933.6	1929.6	1933.6	1929.6	1921.6	1911.6	1915.6
32.5°	1862.8	1865.2	1880.0	1884.8	1885.6	1881.6	1885.6	1884.8	1880.0	1865.2	1862.8
35°	1785.6	1795.6	1805.6	1809.6	1811.6	1805.6	1811.6	1809.6	1805.6	1795.6	1785.6
37.5°	1704.0	1721.6	1728.8	1724.4	1724.8	1718.4	1724.8	1724.4	1728.8	1721.6	1704.0
40°	1649.7	1665.7	1669.7	1663.7	1665.7	1657.7	1665.7	1663.7	1669.7	1665.7	1649.7
42.5°	1598.5	1611.3	1607.3	1599.7	1598.5	1595.3	1598.5	1599.7	1607.3	1611.3	1598.5
45°	1513.7	1519.7	1501.7	1495.7	1491.7	1487.7	1491.7	1495.7	1501.7	1519.7	1513.7
47.5°	1420.9	1412.9	1395.7	1386.5	1375.3	1367.7	1375.3	1386.5	1395.7	1412.9	1420.9
50°	1361.7	1337.7	1323.7	1301.7	1293.7	1295.7	1293.7	1301.7	1323.7	1337.7	1361.7
52.5°	1289.7	1260.9	1238.9	1220.1	1213.7	1212.5	1213.7	1220.1	1238.9	1260.9	1289.7
55°	1185.8	1141.8	1105.8	1095.8	1093.8	1097.8	1093.8	1095.8	1105.8	1141.8	1185.8
57.5°	1058.2	1015.0	985.4	977.4	970.6	964.2	970.6	977.4	985.4	1015.0	1058.2
60°	971.8	931.8	903.8	895.8	877.8	869.8	877.8	895.8	903.8	931.8	971.8
62.5°	895.0	847.0	825.4	809.4	796.2	783.4	796.2	809.4	825.4	847.0	895.0
65°	783.8	727.8	705.9	691.9	667.9	661.9	667.9	691.9	705.9	727.8	783.8
67.5°	662.3	613.5	585.9	567.1	551.9	551.5	551.9	567.1	585.9	613.5	662.3
70°	583.9	539.9	513.9	491.9	479.9	477.9	479.9	491.9	513.9	539.9	583.9
72.5°	507.1	464.7	441.9	421.5	411.1	409.1	411.1	421.5	441.9	464.7	507.1
75°	397.9	357.9	339.9	325.9	317.9	313.9	317.9	325.9	339.9	357.9	397.9
77.5°	294.3	261.9	252.7	238.4	231.6	231.2	231.6	238.4	252.7	261.9	294.3
80°	232.0	206.0	192.0	184.0	182.0	180.0	182.0	184.0	192.0	206.0	232.0
82.5°	168.0	153.2	144.0	139.2	138.8	135.2	138.8	139.2	144.0	153.2	168.0
85°	90.0	86.0	84.0	82.0	80.0	80.0	80.0	82.0	84.0	86.0	90.0
87.5°	36.8	38.4	38.4	40.0	41.6	40.0	41.6	40.0	38.4	38.4	36.8
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-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2113.6	2113.6	2113.6	2113.6
2.5°	2140.8	2137.6	2128.0	2128.0
5°	2169.5	2161.5	2139.6	2123.6
7.5°	2176.3	2164.7	2136.0	2103.6
10°	2171.5	2161.5	2129.6	2087.6
12.5°	2161.9	2150.4	2120.0	2065.2
15°	2141.6	2123.6	2095.6	2027.6
17.5°	2109.2	2093.2	2060.0	1973.6
20°	2083.6	2067.6	2029.6	1933.6
22.5°	2053.2	2037.2	1997.6	1879.2
25°	2003.6	1979.6	1945.6	1785.6
27.5°	1948.4	1922.4	1874.0	1682.8
30°	1911.6	1877.6	1811.6	1607.7
32.5°	1871.6	1831.2	1718.8	1522.9
35°	1799.6	1765.6	1605.7	1357.7
37.5°	1721.2	1696.4	1503.3	1171.8
40°	1663.7	1643.7	1405.7	1059.8
42.5°	1593.3	1587.7	1298.5	976.6
45°	1497.7	1497.7	1235.7	875.8
47.5°	1400.1	1400.9	1147.8	849.4
50°	1337.7	1317.7	1083.8	847.8
52.5°	1273.7	1210.5	1005.4	785.4
55°	1167.8	1061.8	883.8	713.9
57.5°	1061.0	925.8	695.1	690.3
60°	977.8	829.8	531.9	643.9
62.5°	897.8	721.0	415.1	595.9
65°	779.8	493.9	323.9	495.9
67.5°	667.5	313.5	246.3	358.3
70°	593.9	232.0	176.0	279.9
72.5°	518.7	182.4	148.8	241.5
75°	405.9	130.0	150.0	188.0
77.5°	303.9	98.8	134.0	131.2
80°	232.0	78.0	110.0	104.0
82.5°	172.8	62.0	78.0	76.8
85°	86.0	36.0	40.0	32.0
87.5°	35.2	17.6	14.4	8.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)