

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-835-1D-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-835-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

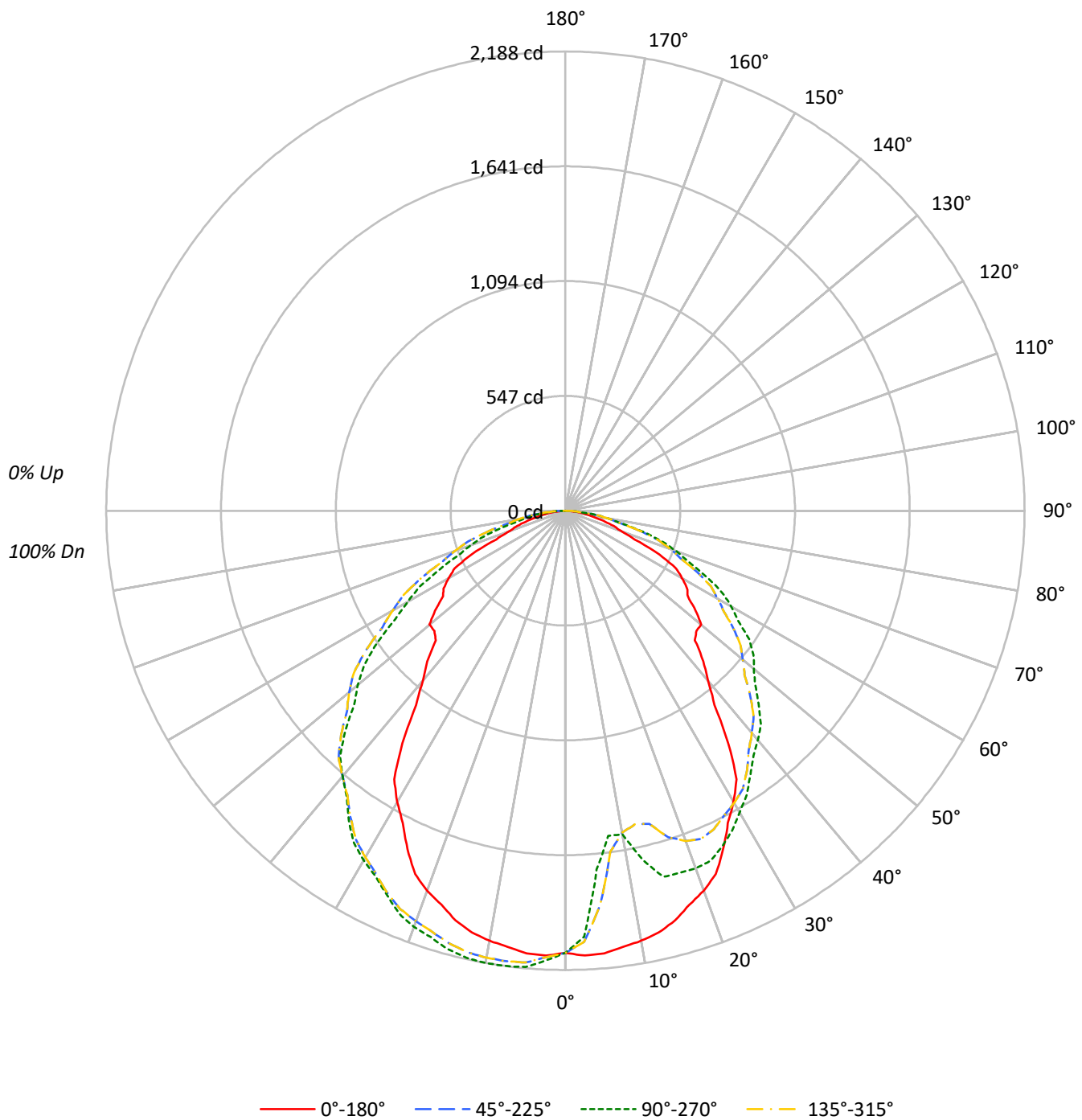
Lumens per Lamp: N/A
Luminaire Lumens: 5458.5 lumens
Efficiency: N/A
Efficacy: 98.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

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

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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°	12956	12956	12956	12956
5°	13067	10594	13067	13473
10°	12994	9771	12994	13666
15°	12867	11497	12867	13768
20°	12613	11870	12613	13814
25°	12078	11983	12078	13687
30°	11379	11790	11379	13658
35°	10160	11537	10160	13512
40°	8481	11457	8481	13264
45°	7593	11319	7593	12897
50°	8086	11213	8086	12356
55°	7629	11454	7629	11733
60°	7894	11228	7894	10664
65°	7193	10731	7193	9600
70°	5017	10071	5017	8566
75°	4451	8902	4451	7436
80°	3670	6918	3670	6355
85°	2251	4785	2251	5625

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 13174 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	189.9	3.5
10°-20°	539.6	9.9
20°-30°	834.0	15.3
30°-40°	996.4	18.3
40°-50°	1002.8	18.4
50°-60°	870.6	16.0
60°-70°	616.3	11.3
70°-80°	326.0	6.0
80°-90°	82.9	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°	1563.5	28.6
0°-40°	2559.8	46.9
0°-60°	4433.3	81.2
0°-90°	5458.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5458.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2106	2106	2106	2106	2106	
5°	2116	1716	2116	2182	2116	201
15°	2021	1806	2021	2162	2021	568
25°	1780	1766	1780	2017	1780	816
35°	1353	1536	1353	1800	1353	836
45°	873	1301	873	1483	873	703
55°	711	1068	711	1094	711	654
65°	494	737	494	660	494	470
75°	187	375	187	313	187	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°	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4
2.5°	2120.8	2104.8	2098.4	2085.7	2061.8	2049.0	2058.6	2042.6	2049.0	2031.5	2049.0
5°	2116.4	2080.5	2050.6	2000.8	1929.0	1845.3	1825.4	1773.6	1741.7	1715.8	1741.7
7.5°	2096.4	2035.1	1943.8	1791.5	1669.2	1609.4	1594.6	1579.9	1575.9	1562.8	1575.9
10°	2080.5	1996.8	1827.4	1656.0	1570.3	1542.4	1548.4	1554.4	1566.4	1564.4	1566.4
12.5°	2058.2	1929.8	1706.2	1587.5	1530.5	1529.7	1573.9	1653.2	1708.2	1704.7	1708.2
15°	2020.7	1801.5	1592.3	1516.5	1498.6	1590.3	1751.7	1789.5	1803.5	1805.5	1803.5
17.5°	1966.9	1676.0	1519.3	1469.5	1530.5	1729.8	1778.8	1795.9	1807.9	1808.7	1807.9
20°	1927.0	1612.2	1482.7	1448.8	1610.2	1737.7	1767.6	1789.5	1809.5	1813.5	1809.5
22.5°	1872.8	1567.5	1444.4	1434.4	1654.8	1729.8	1756.5	1789.5	1806.3	1805.5	1806.3
25°	1779.6	1512.5	1397.0	1418.9	1660.0	1687.9	1739.7	1761.6	1763.6	1765.6	1763.6
27.5°	1677.2	1464.3	1341.6	1429.2	1627.7	1647.7	1703.5	1714.6	1722.2	1719.0	1722.2
30°	1602.2	1430.8	1303.3	1430.8	1602.2	1614.2	1670.0	1677.9	1668.0	1660.0	1668.0
32.5°	1517.7	1389.4	1266.6	1419.7	1564.0	1580.7	1625.3	1622.1	1612.2	1605.8	1612.2
35°	1353.1	1319.2	1199.7	1383.0	1498.6	1520.5	1546.4	1544.4	1542.4	1536.5	1542.4
37.5°	1167.8	1236.3	1133.5	1326.0	1435.6	1434.0	1472.7	1481.1	1479.1	1471.5	1479.1
40°	1056.2	1167.8	1092.1	1281.4	1391.0	1375.0	1424.9	1434.8	1432.8	1426.9	1432.8
42.5°	973.3	1076.9	1044.2	1227.2	1336.8	1317.6	1378.6	1388.6	1383.4	1379.0	1383.4
45°	872.9	890.8	970.5	1139.9	1245.5	1243.5	1309.3	1319.2	1307.3	1301.3	1307.3
47.5°	846.5	718.2	890.0	1038.7	1155.0	1162.6	1233.2	1241.9	1231.2	1226.0	1231.2
50°	845.0	633.7	831.0	960.5	1096.0	1110.0	1183.7	1187.7	1173.8	1171.8	1173.8
52.5°	782.8	585.9	762.5	892.0	1045.0	1062.2	1129.5	1128.7	1127.5	1130.3	1127.5
55°	711.4	528.1	643.7	791.1	966.5	988.4	1048.2	1050.2	1064.2	1068.1	1064.2
57.5°	687.9	462.7	533.7	703.9	887.6	904.7	960.9	965.7	975.3	974.9	975.3
60°	641.7	416.5	468.3	649.7	827.0	848.9	898.8	906.7	914.7	912.7	914.7
62.5°	593.9	384.6	436.4	605.0	769.6	793.1	827.0	841.4	844.6	841.0	844.6
65°	494.2	342.8	386.6	534.1	681.5	707.4	729.4	739.3	741.3	737.3	741.3
67.5°	357.1	304.1	347.5	463.9	580.3	609.4	622.2	628.1	626.1	633.3	626.1
70°	279.0	277.0	318.8	414.5	518.1	544.0	552.0	558.0	556.0	560.0	556.0
72.5°	240.7	254.7	288.6	363.5	448.0	473.9	478.7	479.9	485.8	481.9	485.8
75°	187.3	217.2	239.1	287.0	350.7	368.7	370.7	372.7	368.7	374.6	368.7
77.5°	130.7	165.4	184.9	212.4	255.5	266.6	266.2	267.4	264.2	263.8	264.2
80°	103.6	125.5	143.5	161.4	193.3	201.3	199.3	197.3	197.3	195.3	197.3
82.5°	76.5	88.9	105.2	118.4	139.1	140.7	143.5	139.9	139.9	142.7	139.9
85°	31.9	41.8	53.8	59.8	67.8	69.7	65.8	71.7	67.8	67.8	67.8
87.5°	8.0	12.8	19.1	22.3	23.9	22.3	22.3	19.1	19.1	19.1	19.1
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°	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4
2.5°	2042.6	2058.6	2049.0	2061.8	2085.7	2098.4	2104.8	2120.8	2120.8	2130.3	2133.5
5°	1773.6	1825.4	1845.3	1929.0	2000.8	2050.6	2080.5	2116.4	2132.3	2154.2	2162.2
7.5°	1579.9	1594.6	1609.4	1669.2	1791.5	1943.8	2035.1	2096.4	2128.7	2157.4	2169.0
10°	1554.4	1548.4	1542.4	1570.3	1656.0	1827.4	1996.8	2080.5	2122.3	2154.2	2164.2
12.5°	1653.2	1573.9	1529.7	1530.5	1587.5	1706.2	1929.8	2058.2	2112.8	2143.1	2154.6
15°	1789.5	1751.7	1590.3	1498.6	1516.5	1592.3	1801.5	2020.7	2088.5	2116.4	2134.3
17.5°	1795.9	1778.8	1729.8	1530.5	1469.5	1519.3	1676.0	1966.9	2053.0	2086.1	2102.0
20°	1789.5	1767.6	1737.7	1610.2	1448.8	1482.7	1612.2	1927.0	2022.7	2060.6	2076.5
22.5°	1789.5	1756.5	1729.8	1654.8	1434.4	1444.4	1567.5	1872.8	1990.8	2030.3	2046.2
25°	1761.6	1739.7	1687.9	1660.0	1418.9	1397.0	1512.5	1779.6	1939.0	1972.9	1996.8
27.5°	1714.6	1703.5	1647.7	1627.7	1429.2	1341.6	1464.3	1677.2	1867.7	1915.9	1941.8
30°	1677.9	1670.0	1614.2	1602.2	1430.8	1303.3	1430.8	1602.2	1805.5	1871.3	1905.1
32.5°	1622.1	1625.3	1580.7	1564.0	1419.7	1266.6	1389.4	1517.7	1713.0	1825.0	1865.3
35°	1544.4	1546.4	1520.5	1498.6	1383.0	1199.7	1319.2	1353.1	1600.2	1759.7	1793.5
37.5°	1481.1	1472.7	1434.0	1435.6	1326.0	1133.5	1236.3	1167.8	1498.2	1690.7	1715.4
40°	1434.8	1424.9	1375.0	1391.0	1281.4	1092.1	1167.8	1056.2	1400.9	1638.1	1658.0
42.5°	1388.6	1378.6	1317.6	1336.8	1227.2	1044.2	1076.9	973.3	1294.1	1582.3	1587.9
45°	1319.2	1309.3	1243.5	1245.5	1139.9	970.5	890.8	872.9	1231.6	1492.6	1492.6
47.5°	1241.9	1233.2	1162.6	1155.0	1038.7	890.0	718.2	846.5	1143.9	1396.2	1395.4
50°	1187.7	1183.7	1110.0	1096.0	960.5	831.0	633.7	845.0	1080.1	1313.3	1333.2
52.5°	1128.7	1129.5	1062.2	1045.0	892.0	762.5	585.9	782.8	1002.0	1206.4	1269.4
55°	1050.2	1048.2	988.4	966.5	791.1	643.7	528.1	711.4	880.8	1058.2	1163.8
57.5°	965.7	960.9	904.7	887.6	703.9	533.7	462.7	687.9	692.7	922.7	1057.4
60°	906.7	898.8	848.9	827.0	649.7	468.3	416.5	641.7	530.1	827.0	974.5
62.5°	841.4	827.0	793.1	769.6	605.0	436.4	384.6	593.9	413.7	718.6	894.8
65°	739.3	729.4	707.4	681.5	534.1	386.6	342.8	494.2	322.8	492.2	777.2
67.5°	628.1	622.2	609.4	580.3	463.9	347.5	304.1	357.1	245.5	312.5	665.2
70°	558.0	552.0	544.0	518.1	414.5	318.8	277.0	279.0	175.4	231.2	591.9
72.5°	479.9	478.7	473.9	448.0	363.5	288.6	254.7	240.7	148.3	181.7	516.9
75°	372.7	370.7	368.7	350.7	287.0	239.1	217.2	187.3	149.5	129.5	404.5
77.5°	267.4	266.2	266.6	255.5	212.4	184.9	165.4	130.7	133.5	98.4	302.9
80°	197.3	199.3	201.3	193.3	161.4	143.5	125.5	103.6	109.6	77.7	231.2
82.5°	139.9	143.5	140.7	139.1	118.4	105.2	88.9	76.5	77.7	61.8	172.2
85°	71.7	65.8	69.7	67.8	59.8	53.8	41.8	31.9	39.9	35.9	85.7
87.5°	19.1	22.3	22.3	23.9	22.3	19.1	12.8	8.0	14.3	17.5	35.1
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°	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4	2106.4
2.5°	2128.7	2128.7	2143.1	2146.3	2149.4	2144.7	2149.4	2146.3	2143.1	2128.7	2128.7
5°	2160.2	2160.2	2180.1	2186.1	2186.1	2182.1	2186.1	2186.1	2180.1	2160.2	2160.2
7.5°	2163.0	2166.2	2186.1	2190.5	2194.1	2188.1	2194.1	2190.5	2186.1	2166.2	2163.0
10°	2158.2	2166.2	2186.1	2192.1	2194.1	2188.1	2194.1	2192.1	2186.1	2166.2	2158.2
12.5°	2151.8	2158.2	2178.1	2182.5	2186.1	2181.7	2186.1	2182.5	2178.1	2158.2	2151.8
15°	2130.3	2138.3	2160.2	2164.2	2168.2	2162.2	2168.2	2164.2	2160.2	2138.3	2130.3
17.5°	2100.4	2110.4	2130.3	2136.7	2138.7	2131.1	2138.7	2136.7	2130.3	2110.4	2100.4
20°	2076.5	2086.5	2106.4	2114.4	2116.4	2110.4	2116.4	2114.4	2106.4	2086.5	2076.5
22.5°	2046.2	2062.6	2080.9	2084.1	2081.3	2075.3	2081.3	2084.1	2080.9	2062.6	2046.2
25°	2002.8	2016.7	2022.7	2022.7	2022.7	2016.7	2022.7	2022.7	2022.7	2016.7	2002.8
27.5°	1947.4	1954.6	1958.1	1961.3	1965.3	1961.3	1965.3	1961.3	1958.1	1954.6	1947.4
30°	1909.1	1905.1	1915.1	1923.1	1927.0	1923.1	1927.0	1923.1	1915.1	1905.1	1909.1
32.5°	1856.5	1858.9	1873.6	1878.4	1879.2	1875.2	1879.2	1878.4	1873.6	1858.9	1856.5
35°	1779.6	1789.5	1799.5	1803.5	1805.5	1799.5	1805.5	1803.5	1799.5	1789.5	1779.6
37.5°	1698.3	1715.8	1723.0	1718.6	1719.0	1712.6	1719.0	1718.6	1723.0	1715.8	1698.3
40°	1644.1	1660.0	1664.0	1658.0	1660.0	1652.0	1660.0	1658.0	1664.0	1660.0	1644.1
42.5°	1593.1	1605.8	1601.8	1594.2	1593.1	1589.9	1593.1	1594.2	1601.8	1605.8	1593.1
45°	1508.6	1514.5	1496.6	1490.6	1486.6	1482.7	1486.6	1490.6	1496.6	1514.5	1508.6
47.5°	1416.1	1408.1	1391.0	1381.8	1370.7	1363.1	1370.7	1381.8	1391.0	1408.1	1416.1
50°	1357.1	1333.2	1319.2	1297.3	1289.3	1291.3	1289.3	1297.3	1319.2	1333.2	1357.1
52.5°	1285.4	1256.7	1234.7	1216.0	1209.6	1208.4	1209.6	1216.0	1234.7	1256.7	1285.4
55°	1181.7	1137.9	1102.0	1092.1	1090.1	1094.1	1090.1	1092.1	1102.0	1137.9	1181.7
57.5°	1054.6	1011.6	982.1	974.1	967.3	960.9	967.3	974.1	982.1	1011.6	1054.6
60°	968.5	928.7	900.8	892.8	874.8	866.9	874.8	892.8	900.8	928.7	968.5
62.5°	892.0	844.2	822.6	806.7	793.5	780.8	793.5	806.7	822.6	844.2	892.0
65°	781.2	725.4	703.5	689.5	665.6	659.6	665.6	689.5	703.5	725.4	781.2
67.5°	660.0	611.4	583.9	565.2	550.0	549.6	550.0	565.2	583.9	611.4	660.0
70°	581.9	538.1	512.2	490.2	478.3	476.3	478.3	490.2	512.2	538.1	581.9
72.5°	505.4	463.1	440.4	420.1	409.7	407.7	409.7	420.1	440.4	463.1	505.4
75°	396.6	356.7	338.8	324.8	316.9	312.9	316.9	324.8	338.8	356.7	396.6
77.5°	293.3	261.1	251.9	237.5	230.8	230.4	230.8	237.5	251.9	261.1	293.3
80°	231.2	205.3	191.3	183.3	181.3	179.4	181.3	183.3	191.3	205.3	231.2
82.5°	167.4	152.6	143.5	138.7	138.3	134.7	138.3	138.7	143.5	152.6	167.4
85°	89.7	85.7	83.7	81.7	79.7	79.7	79.7	81.7	83.7	85.7	89.7
87.5°	36.7	38.3	38.3	39.9	41.5	39.9	41.5	39.9	38.3	38.3	36.7
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-835-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2106.4	2106.4	2106.4	2106.4
2.5°	2133.5	2130.3	2120.8	2120.8
5°	2162.2	2154.2	2132.3	2116.4
7.5°	2169.0	2157.4	2128.7	2096.4
10°	2164.2	2154.2	2122.3	2080.5
12.5°	2154.6	2143.1	2112.8	2058.2
15°	2134.3	2116.4	2088.5	2020.7
17.5°	2102.0	2086.1	2053.0	1966.9
20°	2076.5	2060.6	2022.7	1927.0
22.5°	2046.2	2030.3	1990.8	1872.8
25°	1996.8	1972.9	1939.0	1779.6
27.5°	1941.8	1915.9	1867.7	1677.2
30°	1905.1	1871.3	1805.5	1602.2
32.5°	1865.3	1825.0	1713.0	1517.7
35°	1793.5	1759.7	1600.2	1353.1
37.5°	1715.4	1690.7	1498.2	1167.8
40°	1658.0	1638.1	1400.9	1056.2
42.5°	1587.9	1582.3	1294.1	973.3
45°	1492.6	1492.6	1231.6	872.9
47.5°	1395.4	1396.2	1143.9	846.5
50°	1333.2	1313.3	1080.1	845.0
52.5°	1269.4	1206.4	1002.0	782.8
55°	1163.8	1058.2	880.8	711.4
57.5°	1057.4	922.7	692.7	687.9
60°	974.5	827.0	530.1	641.7
62.5°	894.8	718.6	413.7	593.9
65°	777.2	492.2	322.8	494.2
67.5°	665.2	312.5	245.5	357.1
70°	591.9	231.2	175.4	279.0
72.5°	516.9	181.7	148.3	240.7
75°	404.5	129.5	149.5	187.3
77.5°	302.9	98.4	133.5	130.7
80°	231.2	77.7	109.6	103.6
82.5°	172.2	61.8	77.7	76.5
85°	85.7	35.9	39.9	31.9
87.5°	35.1	17.5	14.3	8.0
90°	0.0	0.0	0.0	0.0

(END OF REPORT)