

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-840-1D-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-840-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

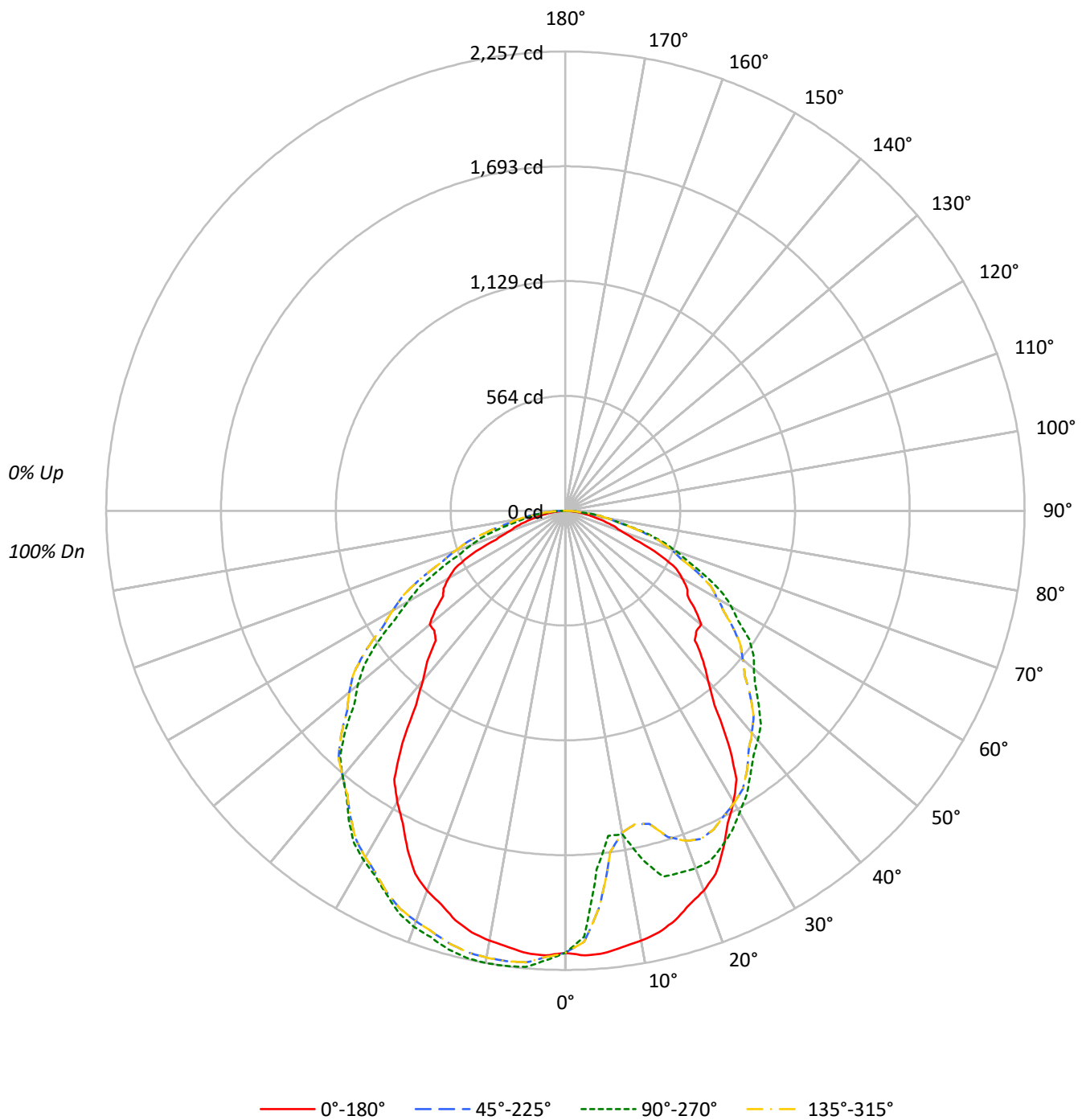
Lumens per Lamp: N/A
Luminaire Lumens: 5630.0 lumens
Efficiency: N/A
Efficacy: 105.4 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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°	6682	6682	6682	6682
5°	6739	5463	6739	6948
10°	6701	5039	6701	7048
15°	6636	5929	6636	7100
20°	6505	6121	6505	7124
25°	6228	6180	6228	7058
30°	5869	6080	5869	7044
35°	5240	5950	5240	6968
40°	4374	5908	4374	6841
45°	3916	5838	3916	6651
50°	4170	5783	4170	6372
55°	3934	5907	3934	6050
60°	4071	5790	4071	5499
65°	3709	5534	3709	4951
70°	2588	5194	2588	4417
75°	2296	4591	2296	3834
80°	1893	3567	1893	3276
85°	1161	2467	1161	2901

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 6794 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	195.9	3.5
10°-20°	556.6	9.9
20°-30°	860.2	15.3
30°-40°	1027.7	18.3
40°-50°	1034.3	18.4
50°-60°	898.0	16.0
60°-70°	635.7	11.3
70°-80°	336.2	6.0
80°-90°	85.5	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°	1612.6	28.6
0°-40°	2640.3	46.9
0°-60°	4572.6	81.2
0°-90°	5630.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5630.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2173	2173	2173	2173	2173	
5°	2183	1770	2183	2251	2183	207
15°	2084	1862	2084	2230	2084	586
25°	1836	1821	1836	2080	1836	842
35°	1396	1585	1396	1856	1396	862
45°	900	1342	900	1529	900	725
55°	734	1102	734	1128	734	675
65°	510	760	510	680	510	485
75°	193	386	193	323	193	204
85°	33	70	33	82	33	47
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°	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6
2.5°	2187.4	2170.9	2164.4	2151.2	2126.6	2113.4	2123.3	2106.8	2113.4	2095.3	2113.4
5°	2182.9	2145.9	2115.0	2063.7	1989.7	1903.3	1882.8	1829.3	1796.4	1769.7	1796.4
7.5°	2162.3	2099.0	2004.9	1847.8	1721.6	1660.0	1644.8	1629.5	1625.4	1611.9	1625.4
10°	2145.9	2059.5	1884.8	1708.1	1619.7	1590.9	1597.1	1603.2	1615.6	1613.5	1615.6
12.5°	2122.9	1990.5	1759.9	1637.4	1578.6	1577.8	1623.4	1705.2	1761.9	1758.2	1761.9
15°	2084.2	1858.1	1642.3	1564.2	1545.7	1640.2	1806.7	1845.8	1860.2	1862.2	1860.2
17.5°	2028.7	1728.6	1567.1	1515.7	1578.6	1784.1	1834.7	1852.4	1864.7	1865.5	1864.7
20°	1987.6	1662.8	1529.2	1494.3	1660.8	1792.3	1823.2	1845.8	1866.3	1870.4	1866.3
22.5°	1931.7	1616.8	1489.8	1479.5	1706.8	1784.1	1811.7	1845.8	1863.0	1862.2	1863.0
25°	1835.5	1560.1	1440.9	1463.5	1712.2	1741.0	1794.4	1817.0	1819.1	1821.1	1819.1
27.5°	1729.9	1510.3	1383.7	1474.2	1678.9	1699.4	1757.0	1768.5	1776.3	1773.0	1776.3
30°	1652.6	1475.8	1344.3	1475.8	1652.6	1664.9	1722.5	1730.7	1720.4	1712.2	1720.4
32.5°	1565.4	1433.0	1306.4	1464.3	1613.1	1630.4	1676.4	1673.1	1662.8	1656.3	1662.8
35°	1395.6	1360.7	1237.4	1426.5	1545.7	1568.3	1595.0	1593.0	1590.9	1584.7	1590.9
37.5°	1204.5	1275.2	1169.1	1367.7	1480.7	1479.1	1519.0	1527.6	1525.5	1517.7	1525.5
40°	1089.4	1204.5	1126.4	1321.6	1434.7	1418.2	1469.6	1479.9	1477.9	1471.7	1477.9
42.5°	1003.9	1110.8	1077.0	1265.7	1378.8	1359.1	1421.9	1432.2	1426.9	1422.4	1426.9
45°	900.3	918.8	1001.0	1175.7	1284.6	1282.6	1350.4	1360.7	1348.4	1342.2	1348.4
47.5°	873.1	740.8	918.0	1071.3	1191.3	1199.1	1271.9	1280.9	1269.8	1264.5	1269.8
50°	871.5	653.6	857.1	990.7	1130.5	1144.9	1220.9	1225.0	1210.7	1208.6	1210.7
52.5°	807.4	604.3	786.4	920.0	1077.9	1095.5	1165.0	1164.2	1163.0	1165.8	1163.0
55°	733.8	544.7	663.9	816.0	996.9	1019.5	1081.2	1083.2	1097.6	1101.7	1097.6
57.5°	709.5	477.3	550.4	726.0	915.5	933.2	991.1	996.1	1005.9	1005.5	1005.9
60°	661.8	429.6	483.0	670.1	853.0	875.6	927.0	935.2	943.4	941.4	943.4
62.5°	612.5	396.7	450.1	624.0	793.8	818.1	853.0	867.8	871.1	867.4	871.1
65°	509.7	353.5	398.8	550.9	703.0	729.7	752.3	762.6	764.6	760.5	764.6
67.5°	368.3	313.7	358.5	478.5	598.5	628.6	641.7	647.9	645.8	653.2	645.8
70°	287.8	285.7	328.9	427.5	534.4	561.1	569.4	575.5	573.5	577.6	573.5
72.5°	248.3	262.7	297.6	374.9	462.1	488.8	493.7	494.9	501.1	497.0	501.1
75°	193.2	224.0	246.7	296.0	361.8	380.3	382.3	384.4	380.3	386.4	380.3
77.5°	134.8	170.6	190.7	219.1	263.5	275.0	274.6	275.8	272.6	272.1	272.6
80°	106.9	129.5	148.0	166.5	199.4	207.6	205.5	203.5	203.5	201.4	203.5
82.5°	78.9	91.7	108.5	122.1	143.5	145.1	148.0	144.3	144.3	147.2	144.3
85°	32.9	43.2	55.5	61.7	69.9	71.9	67.8	74.0	69.9	69.9	69.9
87.5°	8.2	13.2	19.7	23.0	24.7	23.0	23.0	19.7	19.7	19.7	19.7
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6
2.5°	2106.8	2123.3	2113.4	2126.6	2151.2	2164.4	2170.9	2187.4	2187.4	2197.3	2200.5
5°	1829.3	1882.8	1903.3	1989.7	2063.7	2115.0	2145.9	2182.9	2199.3	2221.9	2230.1
7.5°	1629.5	1644.8	1660.0	1721.6	1847.8	2004.9	2099.0	2162.3	2195.6	2225.2	2237.1
10°	1603.2	1597.1	1590.9	1619.7	1708.1	1884.8	2059.5	2145.9	2189.0	2221.9	2232.2
12.5°	1705.2	1623.4	1577.8	1578.6	1637.4	1759.9	1990.5	2122.9	2179.2	2210.4	2222.3
15°	1845.8	1806.7	1640.2	1545.7	1564.2	1642.3	1858.1	2084.2	2154.1	2182.9	2201.4
17.5°	1852.4	1834.7	1784.1	1578.6	1515.7	1567.1	1728.6	2028.7	2117.5	2151.6	2168.1
20°	1845.8	1823.2	1792.3	1660.8	1494.3	1529.2	1662.8	1987.6	2086.3	2125.3	2141.8
22.5°	1845.8	1811.7	1784.1	1706.8	1479.5	1489.8	1616.8	1931.7	2053.4	2094.1	2110.5
25°	1817.0	1794.4	1741.0	1712.2	1463.5	1440.9	1560.1	1835.5	1999.9	2034.9	2059.5
27.5°	1768.5	1757.0	1699.4	1678.9	1474.2	1383.7	1510.3	1729.9	1926.4	1976.1	2002.8
30°	1730.7	1722.5	1664.9	1652.6	1475.8	1344.3	1475.8	1652.6	1862.2	1930.1	1965.0
32.5°	1673.1	1676.4	1630.4	1613.1	1464.3	1306.4	1433.0	1565.4	1766.9	1882.4	1923.9
35°	1593.0	1595.0	1568.3	1545.7	1426.5	1237.4	1360.7	1395.6	1650.5	1814.9	1849.9
37.5°	1527.6	1519.0	1479.1	1480.7	1367.7	1169.1	1275.2	1204.5	1545.3	1743.8	1769.3
40°	1479.9	1469.6	1418.2	1434.7	1321.6	1126.4	1204.5	1089.4	1445.0	1689.6	1710.1
42.5°	1432.2	1421.9	1359.1	1378.8	1265.7	1077.0	1110.8	1003.9	1334.8	1632.0	1637.8
45°	1360.7	1350.4	1282.6	1284.6	1175.7	1001.0	918.8	900.3	1270.3	1539.5	1539.5
47.5°	1280.9	1271.9	1199.1	1191.3	1071.3	918.0	740.8	873.1	1179.8	1440.0	1439.2
50°	1225.0	1220.9	1144.9	1130.5	990.7	857.1	653.6	871.5	1114.0	1354.5	1375.1
52.5°	1164.2	1165.0	1095.5	1077.9	920.0	786.4	604.3	807.4	1033.5	1244.4	1309.3
55°	1083.2	1081.2	1019.5	996.9	816.0	663.9	544.7	733.8	908.5	1091.4	1200.4
57.5°	996.1	991.1	933.2	915.5	726.0	550.4	477.3	709.5	714.5	951.7	1090.6
60°	935.2	927.0	875.6	853.0	670.1	483.0	429.6	661.8	546.7	853.0	1005.1
62.5°	867.8	853.0	818.1	793.8	624.0	450.1	396.7	612.5	426.7	741.2	922.9
65°	762.6	752.3	729.7	703.0	550.9	398.8	353.5	509.7	333.0	507.7	801.6
67.5°	647.9	641.7	628.6	598.5	478.5	358.5	313.7	368.3	253.2	322.3	686.1
70°	575.5	569.4	561.1	534.4	427.5	328.9	285.7	287.8	180.9	238.4	610.5
72.5°	494.9	493.7	488.8	462.1	374.9	297.6	262.7	248.3	152.9	187.5	533.2
75°	384.4	382.3	380.3	361.8	296.0	246.7	224.0	193.2	154.2	133.6	417.3
77.5°	275.8	274.6	275.0	263.5	219.1	190.7	170.6	134.8	137.7	101.5	312.4
80°	203.5	205.5	207.6	199.4	166.5	148.0	129.5	106.9	113.0	80.2	238.4
82.5°	144.3	148.0	145.1	143.5	122.1	108.5	91.7	78.9	80.2	63.7	177.6
85°	74.0	67.8	71.9	69.9	61.7	55.5	43.2	32.9	41.1	37.0	88.4
87.5°	19.7	23.0	23.0	24.7	23.0	19.7	13.2	8.2	14.8	18.1	36.2
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°	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6	2172.6
2.5°	2195.6	2195.6	2210.4	2213.7	2217.0	2212.1	2217.0	2213.7	2210.4	2195.6	2195.6
5°	2228.1	2228.1	2248.6	2254.8	2254.8	2250.7	2254.8	2254.8	2248.6	2228.1	2228.1
7.5°	2231.0	2234.3	2254.8	2259.3	2263.0	2256.9	2263.0	2259.3	2254.8	2234.3	2231.0
10°	2226.0	2234.3	2254.8	2261.0	2263.0	2256.9	2263.0	2261.0	2254.8	2234.3	2226.0
12.5°	2219.5	2226.0	2246.6	2251.1	2254.8	2250.3	2254.8	2251.1	2246.6	2226.0	2219.5
15°	2197.3	2205.5	2228.1	2232.2	2236.3	2230.1	2236.3	2232.2	2228.1	2205.5	2197.3
17.5°	2166.4	2176.7	2197.3	2203.8	2205.9	2198.1	2205.9	2203.8	2197.3	2176.7	2166.4
20°	2141.8	2152.0	2172.6	2180.8	2182.9	2176.7	2182.9	2180.8	2172.6	2152.0	2141.8
22.5°	2110.5	2127.4	2146.3	2149.6	2146.7	2140.5	2146.7	2149.6	2146.3	2127.4	2110.5
25°	2065.7	2080.1	2086.3	2086.3	2086.3	2080.1	2086.3	2086.3	2086.3	2080.1	2065.7
27.5°	2008.6	2016.0	2019.7	2023.0	2027.1	2023.0	2027.1	2023.0	2019.7	2016.0	2008.6
30°	1969.1	1965.0	1975.3	1983.5	1987.6	1983.5	1987.6	1983.5	1975.3	1965.0	1969.1
32.5°	1914.8	1917.3	1932.5	1937.5	1938.3	1934.2	1938.3	1937.5	1932.5	1917.3	1914.8
35°	1835.5	1845.8	1856.1	1860.2	1862.2	1856.1	1862.2	1860.2	1856.1	1845.8	1835.5
37.5°	1751.6	1769.7	1777.1	1772.6	1773.0	1766.4	1773.0	1772.6	1777.1	1769.7	1751.6
40°	1695.7	1712.2	1716.3	1710.1	1712.2	1704.0	1712.2	1710.1	1716.3	1712.2	1695.7
42.5°	1643.1	1656.3	1652.2	1644.3	1643.1	1639.8	1643.1	1644.3	1652.2	1656.3	1643.1
45°	1556.0	1562.1	1543.6	1537.5	1533.4	1529.2	1533.4	1537.5	1543.6	1562.1	1556.0
47.5°	1460.6	1452.4	1434.7	1425.2	1413.7	1405.9	1413.7	1425.2	1434.7	1452.4	1460.6
50°	1399.8	1375.1	1360.7	1338.1	1329.9	1331.9	1329.9	1338.1	1360.7	1375.1	1399.8
52.5°	1325.8	1296.2	1273.5	1254.2	1247.6	1246.4	1247.6	1254.2	1273.5	1296.2	1325.8
55°	1218.9	1173.7	1136.7	1126.4	1124.3	1128.4	1124.3	1126.4	1136.7	1173.7	1218.9
57.5°	1087.7	1043.3	1012.9	1004.7	997.7	991.1	997.7	1004.7	1012.9	1043.3	1087.7
60°	998.9	957.8	929.1	920.8	902.3	894.1	902.3	920.8	929.1	957.8	998.9
62.5°	920.0	870.7	848.5	832.0	818.5	805.3	818.5	832.0	848.5	870.7	920.0
65°	805.7	748.2	725.6	711.2	686.5	680.3	686.5	711.2	725.6	748.2	805.7
67.5°	680.8	630.6	602.2	582.9	567.3	566.9	567.3	582.9	602.2	630.6	680.8
70°	600.2	555.0	528.2	505.6	493.3	491.2	493.3	505.6	528.2	555.0	600.2
72.5°	521.3	477.7	454.3	433.3	422.6	420.5	422.6	433.3	454.3	477.7	521.3
75°	409.0	367.9	349.4	335.0	326.8	322.7	326.8	335.0	349.4	367.9	409.0
77.5°	302.6	269.3	259.8	245.0	238.0	237.6	238.0	245.0	259.8	269.3	302.6
80°	238.4	211.7	197.3	189.1	187.0	185.0	187.0	189.1	197.3	211.7	238.4
82.5°	172.7	157.4	148.0	143.1	142.6	138.9	142.6	143.1	148.0	157.4	172.7
85°	92.5	88.4	86.3	84.3	82.2	82.2	82.2	84.3	86.3	88.4	92.5
87.5°	37.8	39.5	39.5	41.1	42.8	41.1	42.8	41.1	39.5	39.5	37.8
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-050D-840-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2172.6	2172.6	2172.6	2172.6
2.5°	2200.5	2197.3	2187.4	2187.4
5°	2230.1	2221.9	2199.3	2182.9
7.5°	2237.1	2225.2	2195.6	2162.3
10°	2232.2	2221.9	2189.0	2145.9
12.5°	2222.3	2210.4	2179.2	2122.9
15°	2201.4	2182.9	2154.1	2084.2
17.5°	2168.1	2151.6	2117.5	2028.7
20°	2141.8	2125.3	2086.3	1987.6
22.5°	2110.5	2094.1	2053.4	1931.7
25°	2059.5	2034.9	1999.9	1835.5
27.5°	2002.8	1976.1	1926.4	1729.9
30°	1965.0	1930.1	1862.2	1652.6
32.5°	1923.9	1882.4	1766.9	1565.4
35°	1849.9	1814.9	1650.5	1395.6
37.5°	1769.3	1743.8	1545.3	1204.5
40°	1710.1	1689.6	1445.0	1089.4
42.5°	1637.8	1632.0	1334.8	1003.9
45°	1539.5	1539.5	1270.3	900.3
47.5°	1439.2	1440.0	1179.8	873.1
50°	1375.1	1354.5	1114.0	871.5
52.5°	1309.3	1244.4	1033.5	807.4
55°	1200.4	1091.4	908.5	733.8
57.5°	1090.6	951.7	714.5	709.5
60°	1005.1	853.0	546.7	661.8
62.5°	922.9	741.2	426.7	612.5
65°	801.6	507.7	333.0	509.7
67.5°	686.1	322.3	253.2	368.3
70°	610.5	238.4	180.9	287.8
72.5°	533.2	187.5	152.9	248.3
75°	417.3	133.6	154.2	193.2
77.5°	312.4	101.5	137.7	134.8
80°	238.4	80.2	113.0	106.9
82.5°	177.6	63.7	80.2	78.9
85°	88.4	37.0	41.1	32.9
87.5°	36.2	18.1	14.8	8.2
90°	0.0	0.0	0.0	0.0

(END OF REPORT)