

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-830-1D-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-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

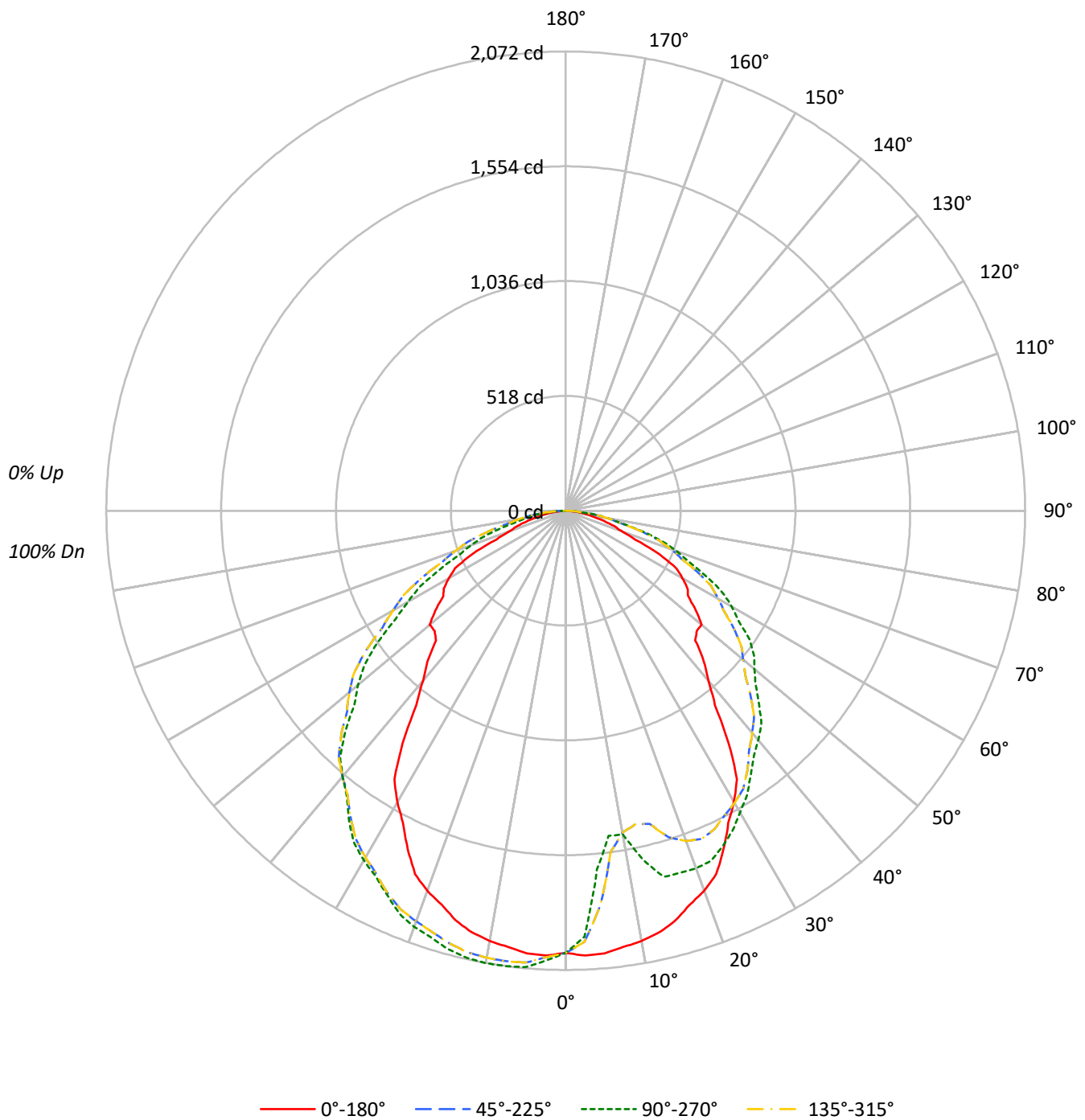
Lumens per Lamp: N/A
Luminaire Lumens: 5169.7 lumens
Efficiency: N/A
Efficacy: 95.0 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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	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°	9203	9203	9203	9203
5°	9282	7525	9282	9570
10°	9230	6940	9230	9708
15°	9140	8167	9140	9780
20°	8960	8431	8960	9812
25°	8579	8511	8579	9722
30°	8083	8375	8083	9702
35°	7217	8195	7217	9598
40°	6024	8138	6024	9422
45°	5393	8041	5393	9161
50°	5744	7965	5744	8777
55°	5419	8136	5419	8334
60°	5607	7975	5607	7575
65°	5110	7622	5110	6819
70°	3563	7154	3563	6084
75°	3162	6324	3162	5281
80°	2606	4915	2606	4514
85°	1598	3398	1598	3996

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 9358 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.8	3.5
10°-20°	511.1	9.9
20°-30°	789.8	15.3
30°-40°	943.7	18.3
40°-50°	949.8	18.4
50°-60°	824.6	16.0
60°-70°	583.7	11.3
70°-80°	308.7	6.0
80°-90°	78.5	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°	1480.8	28.6
0°-40°	2424.4	46.9
0°-60°	4198.8	81.2
0°-90°	5169.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5169.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1995	1995	1995	1995	1995	
5°	2004	1625	2004	2067	2004	190
15°	1914	1710	1914	2048	1914	538
25°	1685	1672	1685	1910	1685	773
35°	1282	1455	1282	1704	1282	791
45°	827	1232	827	1404	827	666
55°	674	1012	674	1036	674	620
65°	468	698	468	625	468	445
75°	177	355	177	296	177	187
85°	30	64	30	76	30	43
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°	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0
2.5°	2008.6	1993.5	1987.4	1975.3	1952.7	1940.6	1949.7	1934.6	1940.6	1924.0	1940.6
5°	2004.4	1970.4	1942.1	1894.9	1827.0	1747.7	1728.8	1679.8	1649.6	1625.0	1649.6
7.5°	1985.5	1927.4	1841.0	1696.8	1580.9	1524.3	1510.3	1496.3	1492.5	1480.1	1492.5
10°	1970.4	1891.2	1730.7	1568.4	1487.3	1460.8	1466.5	1472.2	1483.5	1481.6	1483.5
12.5°	1949.3	1827.7	1616.0	1503.5	1449.5	1448.8	1490.7	1565.8	1617.9	1614.5	1617.9
15°	1913.8	1706.2	1508.0	1436.3	1419.3	1506.1	1659.0	1694.9	1708.1	1710.0	1708.1
17.5°	1862.9	1587.3	1438.9	1391.8	1449.5	1638.3	1684.7	1700.9	1712.2	1713.0	1712.2
20°	1825.1	1526.9	1404.2	1372.1	1525.0	1645.8	1674.1	1694.9	1713.8	1717.5	1713.8
22.5°	1773.8	1484.6	1368.0	1358.5	1567.3	1638.3	1663.5	1694.9	1710.7	1710.0	1710.7
25°	1685.4	1432.5	1323.1	1343.8	1572.2	1598.6	1647.7	1668.5	1670.3	1672.2	1670.3
27.5°	1588.4	1386.9	1270.6	1353.6	1541.6	1560.5	1613.3	1623.9	1631.1	1628.1	1631.1
30°	1517.5	1355.1	1234.4	1355.1	1517.5	1528.8	1581.6	1589.2	1579.7	1572.2	1579.7
32.5°	1437.4	1315.9	1199.6	1344.6	1481.2	1497.1	1539.4	1536.3	1526.9	1520.9	1526.9
35°	1281.5	1249.5	1136.2	1309.8	1419.3	1440.1	1464.6	1462.7	1460.8	1455.2	1460.8
37.5°	1106.0	1170.9	1073.5	1255.9	1359.7	1358.2	1394.8	1402.7	1400.8	1393.6	1400.8
40°	1000.3	1106.0	1034.3	1213.6	1317.4	1302.3	1349.5	1358.9	1357.0	1351.4	1357.0
42.5°	921.8	1019.9	989.0	1162.3	1266.1	1247.9	1305.7	1315.1	1310.2	1306.1	1310.2
45°	826.7	843.7	919.2	1079.6	1179.6	1177.7	1240.0	1249.5	1238.1	1232.5	1238.1
47.5°	801.8	680.2	842.9	983.7	1093.9	1101.1	1167.9	1176.2	1166.0	1161.1	1166.0
50°	800.3	600.2	787.0	909.7	1038.1	1051.3	1121.1	1124.9	1111.7	1109.8	1111.7
52.5°	741.4	554.9	722.1	844.8	989.7	1006.0	1069.8	1069.0	1067.9	1070.5	1067.9
55°	673.8	500.2	609.6	749.3	915.4	936.1	992.8	994.7	1007.9	1011.6	1007.9
57.5°	651.5	438.3	505.4	666.6	840.6	856.9	910.1	914.6	923.7	923.3	923.7
60°	607.7	394.5	443.5	615.3	783.3	804.0	851.2	858.8	866.3	864.4	866.3
62.5°	562.4	364.3	413.3	573.0	728.9	751.2	783.3	796.9	799.9	796.5	799.9
65°	468.1	324.6	366.2	505.8	645.5	670.0	690.8	700.2	702.1	698.3	702.1
67.5°	338.2	288.0	329.2	439.4	549.6	577.2	589.2	594.9	593.0	599.8	593.0
70°	264.2	262.3	302.0	392.6	490.7	515.3	522.8	528.5	526.6	530.4	526.6
72.5°	228.0	241.2	273.3	344.3	424.3	448.8	453.4	454.5	460.1	456.4	460.1
75°	177.4	205.7	226.5	271.8	332.2	349.2	351.1	352.9	349.2	354.8	349.2
77.5°	123.8	156.7	175.1	201.2	242.0	252.5	252.2	253.3	250.3	249.9	250.3
80°	98.1	118.9	135.9	152.9	183.1	190.6	188.7	186.9	186.9	185.0	186.9
82.5°	72.5	84.2	99.7	112.1	131.7	133.2	135.9	132.5	132.5	135.1	132.5
85°	30.2	39.6	51.0	56.6	64.2	66.1	62.3	67.9	64.2	64.2	64.2
87.5°	7.5	12.1	18.1	21.1	22.6	21.1	21.1	18.1	18.1	18.1	18.1
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°	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0
2.5°	1934.6	1949.7	1940.6	1952.7	1975.3	1987.4	1993.5	2008.6	2008.6	2017.6	2020.6
5°	1679.8	1728.8	1747.7	1827.0	1894.9	1942.1	1970.4	2004.4	2019.5	2040.3	2047.8
7.5°	1496.3	1510.3	1524.3	1580.9	1696.8	1841.0	1927.4	1985.5	2016.1	2043.3	2054.2
10°	1472.2	1466.5	1460.8	1487.3	1568.4	1730.7	1891.2	1970.4	2010.1	2040.3	2049.7
12.5°	1565.8	1490.7	1448.8	1449.5	1503.5	1616.0	1827.7	1949.3	2001.0	2029.7	2040.6
15°	1694.9	1659.0	1506.1	1419.3	1436.3	1508.0	1706.2	1913.8	1978.0	2004.4	2021.4
17.5°	1700.9	1684.7	1638.3	1449.5	1391.8	1438.9	1587.3	1862.9	1944.4	1975.7	1990.8
20°	1694.9	1674.1	1645.8	1525.0	1372.1	1404.2	1526.9	1825.1	1915.7	1951.6	1966.7
22.5°	1694.9	1663.5	1638.3	1567.3	1358.5	1368.0	1484.6	1773.8	1885.5	1922.9	1938.0
25°	1668.5	1647.7	1598.6	1572.2	1343.8	1323.1	1432.5	1685.4	1836.4	1868.5	1891.2
27.5°	1623.9	1613.3	1560.5	1541.6	1353.6	1270.6	1386.9	1588.4	1768.9	1814.5	1839.1
30°	1589.2	1581.6	1528.8	1517.5	1355.1	1234.4	1355.1	1517.5	1710.0	1772.3	1804.3
32.5°	1536.3	1539.4	1497.1	1481.2	1344.6	1199.6	1315.9	1437.4	1622.4	1728.5	1766.6
35°	1462.7	1464.6	1440.1	1419.3	1309.8	1136.2	1249.5	1281.5	1515.6	1666.6	1698.7
37.5°	1402.7	1394.8	1358.2	1359.7	1255.9	1073.5	1170.9	1106.0	1418.9	1601.3	1624.7
40°	1358.9	1349.5	1302.3	1317.4	1213.6	1034.3	1106.0	1000.3	1326.8	1551.4	1570.3
42.5°	1315.1	1305.7	1247.9	1266.1	1162.3	989.0	1019.9	921.8	1225.7	1498.6	1503.9
45°	1249.5	1240.0	1177.7	1179.6	1079.6	919.2	843.7	826.7	1166.4	1413.7	1413.7
47.5°	1176.2	1167.9	1101.1	1093.9	983.7	842.9	680.2	801.8	1083.4	1322.3	1321.6
50°	1124.9	1121.1	1051.3	1038.1	909.7	787.0	600.2	800.3	1023.0	1243.8	1262.7
52.5°	1069.0	1069.8	1006.0	989.7	844.8	722.1	554.9	741.4	949.0	1142.6	1202.3
55°	994.7	992.8	936.1	915.4	749.3	609.6	500.2	673.8	834.2	1002.2	1102.2
57.5°	914.6	910.1	856.9	840.6	666.6	505.4	438.3	651.5	656.1	873.9	1001.4
60°	858.8	851.2	804.0	783.3	615.3	443.5	394.5	607.7	502.0	783.3	922.9
62.5°	796.9	783.3	751.2	728.9	573.0	413.3	364.3	562.4	391.8	680.6	847.4
65°	700.2	690.8	670.0	645.5	505.8	366.2	324.6	468.1	305.8	466.2	736.1
67.5°	594.9	589.2	577.2	549.6	439.4	329.2	288.0	338.2	232.5	295.9	630.0
70°	528.5	522.8	515.3	490.7	392.6	302.0	262.3	264.2	166.1	218.9	560.6
72.5°	454.5	453.4	448.8	424.3	344.3	273.3	241.2	228.0	140.4	172.1	489.6
75°	352.9	351.1	349.2	332.2	271.8	226.5	205.7	177.4	141.6	122.7	383.1
77.5°	253.3	252.2	252.5	242.0	201.2	175.1	156.7	123.8	126.5	93.2	286.9
80°	186.9	188.7	190.6	183.1	152.9	135.9	118.9	98.1	103.8	73.6	218.9
82.5°	132.5	135.9	133.2	131.7	112.1	99.7	84.2	72.5	73.6	58.5	163.1
85°	67.9	62.3	66.1	64.2	56.6	51.0	39.6	30.2	37.7	34.0	81.2
87.5°	18.1	21.1	21.1	22.6	21.1	18.1	12.1	7.5	13.6	16.6	33.2
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°	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0	1995.0
2.5°	2016.1	2016.1	2029.7	2032.7	2035.7	2031.2	2035.7	2032.7	2029.7	2016.1	2016.1
5°	2045.9	2045.9	2064.8	2070.5	2070.5	2066.7	2070.5	2070.5	2064.8	2045.9	2045.9
7.5°	2048.6	2051.6	2070.5	2074.6	2078.0	2072.4	2078.0	2074.6	2070.5	2051.6	2048.6
10°	2044.0	2051.6	2070.5	2076.1	2078.0	2072.4	2078.0	2076.1	2070.5	2051.6	2044.0
12.5°	2038.0	2044.0	2062.9	2067.1	2070.5	2066.3	2070.5	2067.1	2062.9	2044.0	2038.0
15°	2017.6	2025.2	2045.9	2049.7	2053.5	2047.8	2053.5	2049.7	2045.9	2025.2	2017.6
17.5°	1989.3	1998.7	2017.6	2023.7	2025.5	2018.4	2025.5	2023.7	2017.6	1998.7	1989.3
20°	1966.7	1976.1	1995.0	2002.5	2004.4	1998.7	2004.4	2002.5	1995.0	1976.1	1966.7
22.5°	1938.0	1953.4	1970.8	1973.8	1971.2	1965.5	1971.2	1973.8	1970.8	1953.4	1938.0
25°	1896.8	1910.0	1915.7	1915.7	1915.7	1910.0	1915.7	1915.7	1915.7	1910.0	1896.8
27.5°	1844.4	1851.2	1854.6	1857.6	1861.3	1857.6	1861.3	1857.6	1854.6	1851.2	1844.4
30°	1808.1	1804.3	1813.8	1821.3	1825.1	1821.3	1825.1	1821.3	1813.8	1804.3	1808.1
32.5°	1758.3	1760.6	1774.5	1779.1	1779.8	1776.0	1779.8	1779.1	1774.5	1760.6	1758.3
35°	1685.4	1694.9	1704.3	1708.1	1710.0	1704.3	1710.0	1708.1	1704.3	1694.9	1685.4
37.5°	1608.4	1625.0	1631.8	1627.7	1628.1	1622.0	1628.1	1627.7	1631.8	1625.0	1608.4
40°	1557.1	1572.2	1576.0	1570.3	1572.2	1564.6	1572.2	1570.3	1576.0	1572.2	1557.1
42.5°	1508.8	1520.9	1517.1	1509.9	1508.8	1505.8	1508.8	1509.9	1517.1	1520.9	1508.8
45°	1428.8	1434.4	1417.4	1411.8	1408.0	1404.2	1408.0	1411.8	1417.4	1434.4	1428.8
47.5°	1341.2	1333.6	1317.4	1308.7	1298.1	1291.0	1298.1	1308.7	1317.4	1333.6	1341.2
50°	1285.3	1262.7	1249.5	1228.7	1221.1	1223.0	1221.1	1228.7	1249.5	1262.7	1285.3
52.5°	1217.4	1190.2	1169.4	1151.7	1145.6	1144.5	1145.6	1151.7	1169.4	1190.2	1217.4
55°	1119.2	1077.7	1043.7	1034.3	1032.4	1036.2	1032.4	1034.3	1043.7	1077.7	1119.2
57.5°	998.8	958.0	930.1	922.6	916.1	910.1	916.1	922.6	930.1	958.0	998.8
60°	917.3	879.5	853.1	845.6	828.6	821.0	828.6	845.6	853.1	879.5	917.3
62.5°	844.8	799.5	779.1	764.0	751.6	739.5	751.6	764.0	779.1	799.5	844.8
65°	739.9	687.0	666.2	653.0	630.4	624.7	630.4	653.0	666.2	687.0	739.9
67.5°	625.1	579.1	553.0	535.3	520.9	520.5	520.9	535.3	553.0	579.1	625.1
70°	551.1	509.6	485.1	464.3	453.0	451.1	453.0	464.3	485.1	509.6	551.1
72.5°	478.6	438.6	417.1	397.9	388.0	386.2	388.0	397.9	417.1	438.6	478.6
75°	375.6	337.8	320.9	307.6	300.1	296.3	300.1	307.6	320.9	337.8	375.6
77.5°	277.8	247.2	238.6	225.0	218.6	218.2	218.6	225.0	238.6	247.2	277.8
80°	218.9	194.4	181.2	173.6	171.8	169.9	171.8	173.6	181.2	194.4	218.9
82.5°	158.5	144.6	135.9	131.4	131.0	127.6	131.0	131.4	135.9	144.6	158.5
85°	84.9	81.2	79.3	77.4	75.5	75.5	75.5	77.4	79.3	81.2	84.9
87.5°	34.7	36.2	36.2	37.7	39.3	37.7	39.3	37.7	36.2	36.2	34.7
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-075D-830-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1995.0	1995.0	1995.0	1995.0
2.5°	2020.6	2017.6	2008.6	2008.6
5°	2047.8	2040.3	2019.5	2004.4
7.5°	2054.2	2043.3	2016.1	1985.5
10°	2049.7	2040.3	2010.1	1970.4
12.5°	2040.6	2029.7	2001.0	1949.3
15°	2021.4	2004.4	1978.0	1913.8
17.5°	1990.8	1975.7	1944.4	1862.9
20°	1966.7	1951.6	1915.7	1825.1
22.5°	1938.0	1922.9	1885.5	1773.8
25°	1891.2	1868.5	1836.4	1685.4
27.5°	1839.1	1814.5	1768.9	1588.4
30°	1804.3	1772.3	1710.0	1517.5
32.5°	1766.6	1728.5	1622.4	1437.4
35°	1698.7	1666.6	1515.6	1281.5
37.5°	1624.7	1601.3	1418.9	1106.0
40°	1570.3	1551.4	1326.8	1000.3
42.5°	1503.9	1498.6	1225.7	921.8
45°	1413.7	1413.7	1166.4	826.7
47.5°	1321.6	1322.3	1083.4	801.8
50°	1262.7	1243.8	1023.0	800.3
52.5°	1202.3	1142.6	949.0	741.4
55°	1102.2	1002.2	834.2	673.8
57.5°	1001.4	873.9	656.1	651.5
60°	922.9	783.3	502.0	607.7
62.5°	847.4	680.6	391.8	562.4
65°	736.1	466.2	305.8	468.1
67.5°	630.0	295.9	232.5	338.2
70°	560.6	218.9	166.1	264.2
72.5°	489.6	172.1	140.4	228.0
75°	383.1	122.7	141.6	177.4
77.5°	286.9	93.2	126.5	123.8
80°	218.9	73.6	103.8	98.1
82.5°	163.1	58.5	73.6	72.5
85°	81.2	34.0	37.7	30.2
87.5°	33.2	16.6	13.6	7.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)