

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-830-1D-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-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

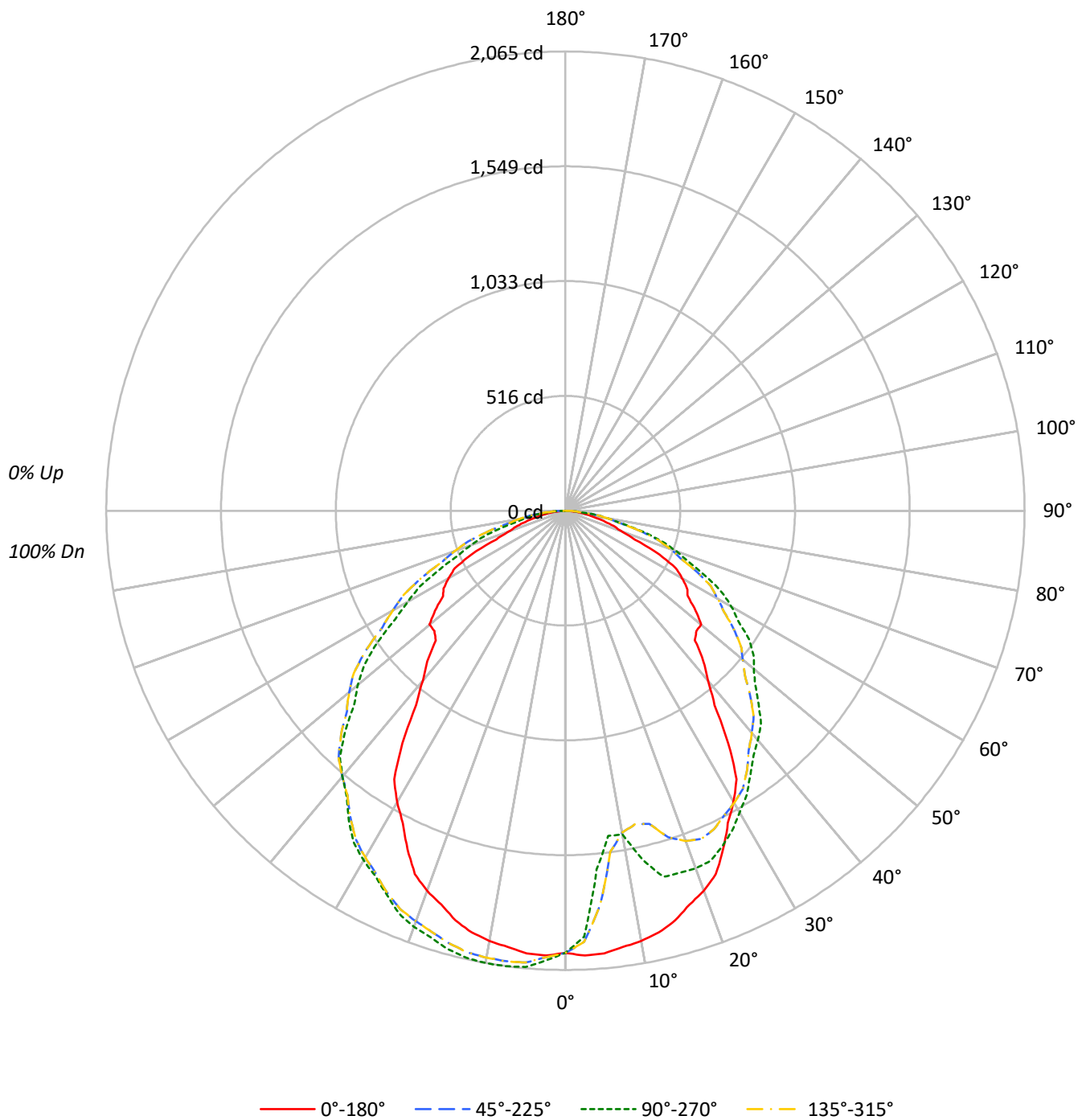
Lumens per Lamp: N/A
Luminaire Lumens: 5152.2 lumens
Efficiency: N/A
Efficacy: 93.2 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

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°	12229	12229	12229	12229
5°	12334	9999	12334	12717
10°	12265	9222	12265	12899
15°	12145	10852	12145	12996
20°	11906	11204	11906	13039
25°	11400	11311	11400	12919
30°	10741	11129	10741	12892
35°	9590	10890	9590	12754
40°	8004	10814	8004	12520
45°	7167	10684	7167	12174
50°	7631	10583	7631	11664
55°	7201	10812	7201	11074
60°	7451	10598	7451	10065
65°	6789	10130	6789	9061
70°	4735	9506	4735	8085
75°	4202	8403	4202	7018
80°	3464	6528	3464	5997
85°	2124	4517	2124	5307

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 12435 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	179.2	3.5
10°-20°	509.4	9.9
20°-30°	787.2	15.3
30°-40°	940.5	18.3
40°-50°	946.5	18.4
50°-60°	821.8	16.0
60°-70°	581.7	11.3
70°-80°	307.7	6.0
80°-90°	78.3	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°	1475.7	28.6
0°-40°	2416.2	46.9
0°-60°	4184.5	81.2
0°-90°	5152.2	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	5152.2	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1988	1988	1988	1988	1988	
5°	1998	1620	1998	2060	1998	189
15°	1907	1704	1907	2041	1907	536
25°	1680	1667	1680	1904	1680	770
35°	1277	1450	1277	1698	1277	789
45°	824	1228	824	1400	824	664
55°	672	1008	672	1033	672	618
65°	466	696	466	623	466	444
75°	177	354	177	295	177	187
85°	30	64	30	75	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°	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2
2.5°	2001.8	1986.7	1980.7	1968.7	1946.1	1934.0	1943.1	1928.0	1934.0	1917.5	1934.0
5°	1997.6	1963.8	1935.5	1888.5	1820.8	1741.8	1723.0	1674.1	1644.0	1619.5	1644.0
7.5°	1978.8	1920.9	1834.7	1691.0	1575.5	1519.1	1505.2	1491.3	1487.5	1475.1	1487.5
10°	1963.8	1884.8	1724.9	1563.1	1482.2	1455.9	1461.5	1467.2	1478.5	1476.6	1478.5
12.5°	1942.7	1821.6	1610.5	1498.4	1444.6	1443.9	1485.6	1560.5	1612.4	1609.0	1612.4
15°	1907.3	1700.4	1502.9	1431.4	1414.5	1501.0	1653.4	1689.1	1702.3	1704.2	1702.3
17.5°	1856.5	1581.9	1434.1	1387.0	1444.6	1632.7	1679.0	1695.2	1706.4	1707.2	1706.4
20°	1818.9	1521.7	1399.5	1367.5	1519.8	1640.2	1668.4	1689.1	1707.9	1711.7	1707.9
22.5°	1767.8	1479.6	1363.3	1353.9	1562.0	1632.7	1657.9	1689.1	1704.9	1704.2	1704.9
25°	1679.7	1427.7	1318.6	1339.3	1566.9	1593.2	1642.1	1662.8	1664.7	1666.6	1664.7
27.5°	1583.0	1382.2	1266.3	1349.1	1536.4	1555.2	1607.9	1618.4	1625.6	1622.6	1625.6
30°	1512.3	1350.6	1230.2	1350.6	1512.3	1523.6	1576.3	1583.8	1574.4	1566.9	1574.4
32.5°	1432.6	1311.4	1195.6	1340.0	1476.2	1492.0	1534.1	1531.1	1521.7	1515.7	1521.7
35°	1277.2	1245.2	1132.4	1305.4	1414.5	1435.2	1459.7	1457.8	1455.9	1450.3	1455.9
37.5°	1102.3	1167.0	1069.9	1251.6	1355.1	1353.6	1390.1	1398.0	1396.1	1388.9	1396.1
40°	996.9	1102.3	1030.8	1209.5	1312.9	1297.9	1344.9	1354.3	1352.4	1346.8	1352.4
42.5°	918.7	1016.5	985.6	1158.3	1261.8	1243.7	1301.3	1310.7	1305.8	1301.7	1305.8
45°	823.9	840.8	916.0	1075.9	1175.6	1173.7	1235.8	1245.2	1233.9	1228.3	1233.9
47.5°	799.0	677.9	840.1	980.4	1090.2	1097.4	1164.0	1172.2	1162.1	1157.2	1162.1
50°	797.5	598.2	784.4	906.6	1034.6	1047.7	1117.3	1121.1	1107.9	1106.0	1107.9
52.5°	738.9	553.0	719.7	841.9	986.4	1002.6	1066.2	1065.4	1064.3	1066.9	1064.3
55°	671.5	498.5	607.6	746.8	912.3	933.0	989.4	991.3	1004.5	1008.2	1004.5
57.5°	649.3	436.8	503.7	664.4	837.8	854.0	907.0	911.5	920.6	920.2	920.6
60°	605.7	393.1	442.0	613.2	780.6	801.3	848.3	855.9	863.4	861.5	863.4
62.5°	560.5	363.0	411.9	571.1	726.4	748.6	780.6	794.2	797.2	793.8	797.2
65°	466.5	323.5	364.9	504.1	643.3	667.8	688.4	697.9	699.7	696.0	699.7
67.5°	337.1	287.0	328.0	437.9	547.7	575.2	587.2	592.9	591.0	597.8	591.0
70°	263.3	261.5	301.0	391.2	489.1	513.5	521.0	526.7	524.8	528.6	524.8
72.5°	227.2	240.4	272.4	343.1	422.8	447.3	451.8	452.9	458.6	454.8	458.6
75°	176.8	205.0	225.7	270.9	331.1	348.0	349.9	351.7	348.0	353.6	348.0
77.5°	123.4	156.1	174.6	200.5	241.1	251.7	251.3	252.4	249.4	249.0	249.4
80°	97.8	118.5	135.4	152.4	182.5	190.0	188.1	186.2	186.2	184.3	186.2
82.5°	72.2	83.9	99.3	111.7	131.3	132.8	135.4	132.0	132.0	134.7	132.0
85°	30.1	39.5	50.8	56.4	64.0	65.8	62.1	67.7	64.0	64.0	64.0
87.5°	7.5	12.0	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°	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2
2.5°	1928.0	1943.1	1934.0	1946.1	1968.7	1980.7	1986.7	2001.8	2001.8	2010.8	2013.8
5°	1674.1	1723.0	1741.8	1820.8	1888.5	1935.5	1963.8	1997.6	2012.7	2033.4	2040.9
7.5°	1491.3	1505.2	1519.1	1575.5	1691.0	1834.7	1920.9	1978.8	2009.3	2036.4	2047.3
10°	1467.2	1461.5	1455.9	1482.2	1563.1	1724.9	1884.8	1963.8	2003.3	2033.4	2042.8
12.5°	1560.5	1485.6	1443.9	1444.6	1498.4	1610.5	1821.6	1942.7	1994.2	2022.8	2033.7
15°	1689.1	1653.4	1501.0	1414.5	1431.4	1502.9	1700.4	1907.3	1971.3	1997.6	2014.6
17.5°	1695.2	1679.0	1632.7	1444.6	1387.0	1434.1	1581.9	1856.5	1937.8	1969.0	1984.1
20°	1689.1	1668.4	1640.2	1519.8	1367.5	1399.5	1521.7	1818.9	1909.2	1945.0	1960.0
22.5°	1689.1	1657.9	1632.7	1562.0	1353.9	1363.3	1479.6	1767.8	1879.1	1916.4	1931.4
25°	1662.8	1642.1	1593.2	1566.9	1339.3	1318.6	1427.7	1679.7	1830.2	1862.2	1884.8
27.5°	1618.4	1607.9	1555.2	1536.4	1349.1	1266.3	1382.2	1583.0	1762.9	1808.4	1832.8
30°	1583.8	1576.3	1523.6	1512.3	1350.6	1230.2	1350.6	1512.3	1704.2	1766.3	1798.2
32.5°	1531.1	1534.1	1492.0	1476.2	1340.0	1195.6	1311.4	1432.6	1616.9	1722.6	1760.6
35°	1457.8	1459.7	1435.2	1414.5	1305.4	1132.4	1245.2	1277.2	1510.4	1660.9	1692.9
37.5°	1398.0	1390.1	1353.6	1355.1	1251.6	1069.9	1167.0	1102.3	1414.1	1595.8	1619.2
40°	1354.3	1344.9	1297.9	1312.9	1209.5	1030.8	1102.3	996.9	1322.3	1546.2	1565.0
42.5°	1310.7	1301.3	1243.7	1261.8	1158.3	985.6	1016.5	918.7	1221.5	1493.5	1498.8
45°	1245.2	1235.8	1173.7	1175.6	1075.9	916.0	840.8	823.9	1162.5	1408.9	1408.9
47.5°	1172.2	1164.0	1097.4	1090.2	980.4	840.1	677.9	799.0	1079.7	1317.8	1317.1
50°	1121.1	1117.3	1047.7	1034.6	906.6	784.4	598.2	797.5	1019.5	1239.6	1258.4
52.5°	1065.4	1066.2	1002.6	986.4	841.9	719.7	553.0	738.9	945.8	1138.8	1198.2
55°	991.3	989.4	933.0	912.3	746.8	607.6	498.5	671.5	831.4	998.8	1098.5
57.5°	911.5	907.0	854.0	837.8	664.4	503.7	436.8	649.3	653.8	870.9	998.1
60°	855.9	848.3	801.3	780.6	613.2	442.0	393.1	605.7	500.3	780.6	919.8
62.5°	794.2	780.6	748.6	726.4	571.1	411.9	363.0	560.5	390.5	678.3	844.6
65°	697.9	688.4	667.8	643.3	504.1	364.9	323.5	466.5	304.7	464.6	733.6
67.5°	592.9	587.2	575.2	547.7	437.9	328.0	287.0	337.1	231.7	294.9	627.9
70°	526.7	521.0	513.5	489.1	391.2	301.0	261.5	263.3	165.5	218.2	558.7
72.5°	452.9	451.8	447.3	422.8	343.1	272.4	240.4	227.2	139.9	171.5	487.9
75°	351.7	349.9	348.0	331.1	270.9	225.7	205.0	176.8	141.1	122.3	381.8
77.5°	252.4	251.3	251.7	241.1	200.5	174.6	156.1	123.4	126.0	92.9	285.9
80°	186.2	188.1	190.0	182.5	152.4	135.4	118.5	97.8	103.5	73.4	218.2
82.5°	132.0	135.4	132.8	131.3	111.7	99.3	83.9	72.2	73.4	58.3	162.5
85°	67.7	62.1	65.8	64.0	56.4	50.8	39.5	30.1	37.6	33.9	80.9
87.5°	18.1	21.1	21.1	22.6	21.1	18.1	12.0	7.5	13.5	16.6	33.1
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°	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2	1988.2
2.5°	2009.3	2009.3	2022.8	2025.8	2028.8	2024.3	2028.8	2025.8	2022.8	2009.3	2009.3
5°	2039.0	2039.0	2057.8	2063.5	2063.5	2059.7	2063.5	2063.5	2057.8	2039.0	2039.0
7.5°	2041.6	2044.6	2063.5	2067.6	2071.0	2065.3	2071.0	2067.6	2063.5	2044.6	2041.6
10°	2037.1	2044.6	2063.5	2069.1	2071.0	2065.3	2071.0	2069.1	2063.5	2044.6	2037.1
12.5°	2031.1	2037.1	2055.9	2060.1	2063.5	2059.3	2063.5	2060.1	2055.9	2037.1	2031.1
15°	2010.8	2018.3	2039.0	2042.8	2046.5	2040.9	2046.5	2042.8	2039.0	2018.3	2010.8
17.5°	1982.6	1992.0	2010.8	2016.8	2018.7	2011.5	2018.7	2016.8	2010.8	1992.0	1982.6
20°	1960.0	1969.4	1988.2	1995.7	1997.6	1992.0	1997.6	1995.7	1988.2	1969.4	1960.0
22.5°	1931.4	1946.8	1964.1	1967.2	1964.5	1958.9	1964.5	1967.2	1964.1	1946.8	1931.4
25°	1890.4	1903.6	1909.2	1909.2	1909.2	1903.6	1909.2	1909.2	1909.2	1903.6	1890.4
27.5°	1838.1	1844.9	1848.3	1851.3	1855.0	1851.3	1855.0	1851.3	1848.3	1844.9	1838.1
30°	1802.0	1798.2	1807.6	1815.2	1818.9	1815.2	1818.9	1815.2	1807.6	1798.2	1802.0
32.5°	1752.3	1754.6	1768.5	1773.0	1773.8	1770.0	1773.8	1773.0	1768.5	1754.6	1752.3
35°	1679.7	1689.1	1698.5	1702.3	1704.2	1698.5	1704.2	1702.3	1698.5	1689.1	1679.7
37.5°	1603.0	1619.5	1626.3	1622.2	1622.6	1616.5	1622.6	1622.2	1626.3	1619.5	1603.0
40°	1551.8	1566.9	1570.6	1565.0	1566.9	1559.3	1566.9	1565.0	1570.6	1566.9	1551.8
42.5°	1503.7	1515.7	1511.9	1504.8	1503.7	1500.7	1503.7	1504.8	1511.9	1515.7	1503.7
45°	1423.9	1429.6	1412.6	1407.0	1403.2	1399.5	1403.2	1407.0	1412.6	1429.6	1423.9
47.5°	1336.6	1329.1	1312.9	1304.3	1293.8	1286.6	1293.8	1304.3	1312.9	1329.1	1336.6
50°	1281.0	1258.4	1245.2	1224.5	1217.0	1218.9	1217.0	1224.5	1245.2	1258.4	1281.0
52.5°	1213.2	1186.2	1165.5	1147.8	1141.8	1140.6	1141.8	1147.8	1165.5	1186.2	1213.2
55°	1115.4	1074.1	1040.2	1030.8	1028.9	1032.7	1028.9	1030.8	1040.2	1074.1	1115.4
57.5°	995.4	954.8	927.0	919.4	913.0	907.0	913.0	919.4	927.0	954.8	995.4
60°	914.2	876.5	850.2	842.7	825.8	818.2	825.8	842.7	850.2	876.5	914.2
62.5°	841.9	796.8	776.5	761.4	749.0	737.0	749.0	761.4	776.5	796.8	841.9
65°	737.4	684.7	664.0	650.8	628.3	622.6	628.3	650.8	664.0	684.7	737.4
67.5°	623.0	577.1	551.1	533.5	519.2	518.8	519.2	533.5	551.1	577.1	623.0
70°	549.3	507.9	483.4	462.7	451.4	449.6	451.4	462.7	483.4	507.9	549.3
72.5°	477.0	437.1	415.7	396.5	386.7	384.9	386.7	396.5	415.7	437.1	477.0
75°	374.3	336.7	319.8	306.6	299.1	295.3	299.1	306.6	319.8	336.7	374.3
77.5°	276.9	246.4	237.8	224.2	217.8	217.4	217.8	224.2	237.8	246.4	276.9
80°	218.2	193.7	180.6	173.1	171.2	169.3	171.2	173.1	180.6	193.7	218.2
82.5°	158.0	144.1	135.4	130.9	130.5	127.2	130.5	130.9	135.4	144.1	158.0
85°	84.6	80.9	79.0	77.1	75.2	75.2	75.2	77.1	79.0	80.9	84.6
87.5°	34.6	36.1	36.1	37.6	39.1	37.6	39.1	37.6	36.1	36.1	34.6
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-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1988.2	1988.2	1988.2	1988.2
2.5°	2013.8	2010.8	2001.8	2001.8
5°	2040.9	2033.4	2012.7	1997.6
7.5°	2047.3	2036.4	2009.3	1978.8
10°	2042.8	2033.4	2003.3	1963.8
12.5°	2033.7	2022.8	1994.2	1942.7
15°	2014.6	1997.6	1971.3	1907.3
17.5°	1984.1	1969.0	1937.8	1856.5
20°	1960.0	1945.0	1909.2	1818.9
22.5°	1931.4	1916.4	1879.1	1767.8
25°	1884.8	1862.2	1830.2	1679.7
27.5°	1832.8	1808.4	1762.9	1583.0
30°	1798.2	1766.3	1704.2	1512.3
32.5°	1760.6	1722.6	1616.9	1432.6
35°	1692.9	1660.9	1510.4	1277.2
37.5°	1619.2	1595.8	1414.1	1102.3
40°	1565.0	1546.2	1322.3	996.9
42.5°	1498.8	1493.5	1221.5	918.7
45°	1408.9	1408.9	1162.5	823.9
47.5°	1317.1	1317.8	1079.7	799.0
50°	1258.4	1239.6	1019.5	797.5
52.5°	1198.2	1138.8	945.8	738.9
55°	1098.5	998.8	831.4	671.5
57.5°	998.1	870.9	653.8	649.3
60°	919.8	780.6	500.3	605.7
62.5°	844.6	678.3	390.5	560.5
65°	733.6	464.6	304.7	466.5
67.5°	627.9	294.9	231.7	337.1
70°	558.7	218.2	165.5	263.3
72.5°	487.9	171.5	139.9	227.2
75°	381.8	122.3	141.1	176.8
77.5°	285.9	92.9	126.0	123.4
80°	218.2	73.4	103.5	97.8
82.5°	162.5	58.3	73.4	72.2
85°	80.9	33.9	37.6	30.1
87.5°	33.1	16.6	13.5	7.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)