

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-125D-840-1D-UNV-STD-W-4

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-125D-840-1D-UNV-STD-W-4
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

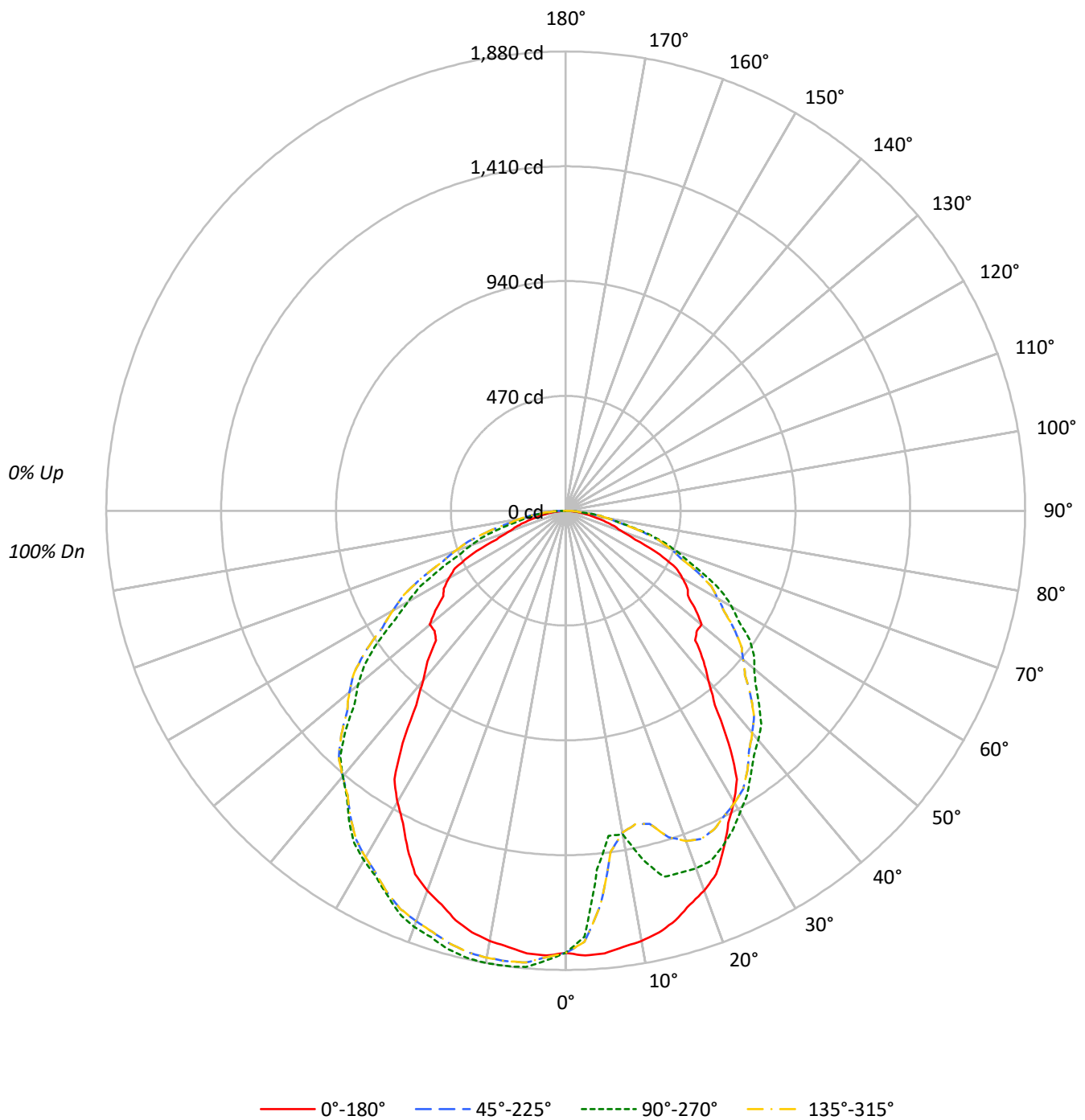
Lumens per Lamp: N/A
Luminaire Lumens: 4690.3 lumens
Efficiency: N/A
Efficacy: 107.6 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 4' x H: 0')
CIE Type: Direct

Input Watts (W): 43.6
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°	16699	16699	16699	16699
5°	16842	13654	16842	17365
10°	16748	12593	16748	17614
15°	16585	14818	16585	17746
20°	16257	15299	16257	17805
25°	15566	15444	15566	17641
30°	14667	15196	14667	17604
35°	13096	14870	13096	17415
40°	10930	14766	10930	17096
45°	9786	14590	9786	16623
50°	10421	14452	10421	15927
55°	9833	14763	9833	15122
60°	10175	14472	10175	13745
65°	9272	13832	9272	12374
70°	6466	12981	6466	11038
75°	5739	11475	5739	9582
80°	4729	8915	4729	8188
85°	2901	6161	2901	7251

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 16980 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	163.2	3.5
10°-20°	463.7	9.9
20°-30°	716.6	15.3
30°-40°	856.1	18.3
40°-50°	861.7	18.4
50°-60°	748.1	16.0
60°-70°	529.6	11.3
70°-80°	280.1	6.0
80°-90°	71.3	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°	1343.4	28.6
0°-40°	2199.6	46.9
0°-60°	3809.3	81.2
0°-90°	4690.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4690.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1810	1810	1810	1810	1810	
5°	1818	1474	1818	1875	1818	172
15°	1736	1551	1736	1858	1736	488
25°	1529	1517	1529	1733	1529	701
35°	1163	1320	1163	1546	1163	718
45°	750	1118	750	1274	750	604
55°	611	918	611	940	611	562
65°	425	634	425	567	425	404
75°	161	322	161	269	161	170
85°	27	58	27	68	27	39
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°	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9
2.5°	1822.3	1808.6	1803.1	1792.1	1771.6	1760.6	1768.8	1755.1	1760.6	1745.6	1760.6
5°	1818.5	1787.7	1762.0	1719.2	1657.5	1585.6	1568.5	1524.0	1496.6	1474.3	1496.6
7.5°	1801.4	1748.6	1670.2	1539.4	1434.3	1382.9	1370.2	1357.5	1354.1	1342.8	1354.1
10°	1787.7	1715.8	1570.2	1423.0	1349.3	1325.4	1330.5	1335.6	1345.9	1344.2	1345.9
12.5°	1768.5	1658.2	1466.1	1364.1	1315.1	1314.4	1352.4	1420.6	1467.8	1464.7	1467.8
15°	1736.3	1548.0	1368.2	1303.1	1287.7	1366.4	1505.1	1537.7	1549.7	1551.4	1549.7
17.5°	1690.1	1440.1	1305.5	1262.7	1315.1	1486.3	1528.4	1543.2	1553.4	1554.1	1553.4
20°	1655.8	1385.3	1274.0	1244.9	1383.6	1493.2	1518.8	1537.7	1554.8	1558.2	1554.8
22.5°	1609.3	1346.9	1241.1	1232.5	1421.9	1486.3	1509.3	1537.7	1552.1	1551.4	1552.1
25°	1529.1	1299.7	1200.4	1219.2	1426.4	1450.4	1494.9	1513.7	1515.4	1517.1	1515.4
27.5°	1441.1	1258.2	1152.7	1228.1	1398.6	1415.8	1463.7	1473.3	1479.8	1477.1	1479.8
30°	1376.7	1229.5	1119.9	1229.5	1376.7	1387.0	1434.9	1441.8	1433.2	1426.4	1433.2
32.5°	1304.1	1193.8	1088.4	1219.9	1343.8	1358.2	1396.6	1393.8	1385.3	1379.8	1385.3
35°	1162.7	1133.6	1030.8	1188.4	1287.7	1306.5	1328.8	1327.1	1325.4	1320.2	1325.4
37.5°	1003.4	1062.3	974.0	1139.4	1233.6	1232.2	1265.4	1272.6	1270.9	1264.4	1270.9
40°	907.5	1003.4	938.4	1101.0	1195.2	1181.5	1224.3	1232.9	1231.2	1226.0	1231.2
42.5°	836.3	925.3	897.3	1054.5	1148.6	1132.2	1184.6	1193.2	1188.7	1184.9	1188.7
45°	750.0	765.4	833.9	979.5	1070.2	1068.5	1125.0	1133.6	1123.3	1118.2	1123.3
47.5°	727.4	617.1	764.7	892.5	992.5	999.0	1059.6	1067.1	1057.9	1053.4	1057.9
50°	726.0	544.5	714.0	825.3	941.8	953.8	1017.1	1020.6	1008.6	1006.9	1008.6
52.5°	672.6	503.4	655.1	766.4	898.0	912.7	970.6	969.9	968.8	971.2	968.8
55°	611.3	453.8	553.1	679.8	830.5	849.3	900.7	902.4	914.4	917.8	914.4
57.5°	591.1	397.6	458.6	604.8	762.7	777.4	825.7	829.8	838.0	837.7	838.0
60°	551.4	357.9	402.4	558.2	710.6	729.5	772.3	779.1	786.0	784.3	786.0
62.5°	510.3	330.5	375.0	519.9	661.3	681.5	710.6	723.0	725.7	722.6	725.7
65°	424.7	294.5	332.2	458.9	585.6	607.9	626.7	635.3	637.0	633.6	637.0
67.5°	306.9	261.3	298.6	398.6	498.6	523.6	534.6	539.7	538.0	544.2	538.0
70°	239.7	238.0	274.0	356.2	445.2	467.5	474.3	479.5	477.7	481.2	477.7
72.5°	206.9	218.8	247.9	312.3	384.9	407.2	411.3	412.3	417.5	414.0	417.5
75°	161.0	186.6	205.5	246.6	301.4	316.8	318.5	320.2	316.8	321.9	316.8
77.5°	112.3	142.1	158.9	182.5	219.5	229.1	228.8	229.8	227.1	226.7	227.1
80°	89.0	107.9	123.3	138.7	166.1	172.9	171.2	169.5	169.5	167.8	169.5
82.5°	65.8	76.4	90.4	101.7	119.5	120.9	123.3	120.2	120.2	122.6	120.2
85°	27.4	36.0	46.2	51.4	58.2	59.9	56.5	61.6	58.2	58.2	58.2
87.5°	6.8	11.0	16.4	19.2	20.5	19.2	19.2	16.4	16.4	16.4	16.4
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°	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9
2.5°	1755.1	1768.8	1760.6	1771.6	1792.1	1803.1	1808.6	1822.3	1822.3	1830.5	1833.2
5°	1524.0	1568.5	1585.6	1657.5	1719.2	1762.0	1787.7	1818.5	1832.2	1851.0	1857.9
7.5°	1357.5	1370.2	1382.9	1434.3	1539.4	1670.2	1748.6	1801.4	1829.1	1853.8	1863.7
10°	1335.6	1330.5	1325.4	1349.3	1423.0	1570.2	1715.8	1787.7	1823.6	1851.0	1859.6
12.5°	1420.6	1352.4	1314.4	1315.1	1364.1	1466.1	1658.2	1768.5	1815.4	1841.5	1851.4
15°	1537.7	1505.1	1366.4	1287.7	1303.1	1368.2	1548.0	1736.3	1794.5	1818.5	1833.9
17.5°	1543.2	1528.4	1486.3	1315.1	1262.7	1305.5	1440.1	1690.1	1764.1	1792.5	1806.2
20°	1537.7	1518.8	1493.2	1383.6	1244.9	1274.0	1385.3	1655.8	1738.0	1770.6	1784.3
22.5°	1537.7	1509.3	1486.3	1421.9	1232.5	1241.1	1346.9	1609.3	1710.6	1744.5	1758.2
25°	1513.7	1494.9	1450.4	1426.4	1219.2	1200.4	1299.7	1529.1	1666.1	1695.2	1715.8
27.5°	1473.3	1463.7	1415.8	1398.6	1228.1	1152.7	1258.2	1441.1	1604.8	1646.2	1668.5
30°	1441.8	1434.9	1387.0	1376.7	1229.5	1119.9	1229.5	1376.7	1551.4	1607.9	1637.0
32.5°	1393.8	1396.6	1358.2	1343.8	1219.9	1088.4	1193.8	1304.1	1471.9	1568.2	1602.8
35°	1327.1	1328.8	1306.5	1287.7	1188.4	1030.8	1133.6	1162.7	1375.0	1512.0	1541.1
37.5°	1272.6	1265.4	1232.2	1233.6	1139.4	974.0	1062.3	1003.4	1287.3	1452.7	1474.0
40°	1232.9	1224.3	1181.5	1195.2	1101.0	938.4	1003.4	907.5	1203.8	1407.5	1424.7
42.5°	1193.2	1184.6	1132.2	1148.6	1054.5	897.3	925.3	836.3	1112.0	1359.6	1364.4
45°	1133.6	1125.0	1068.5	1070.2	979.5	833.9	765.4	750.0	1058.2	1282.5	1282.5
47.5°	1067.1	1059.6	999.0	992.5	892.5	764.7	617.1	727.4	982.9	1199.7	1199.0
50°	1020.6	1017.1	953.8	941.8	825.3	714.0	544.5	726.0	928.1	1128.4	1145.6
52.5°	969.9	970.6	912.7	898.0	766.4	655.1	503.4	672.6	861.0	1036.7	1090.8
55°	902.4	900.7	849.3	830.5	679.8	553.1	453.8	611.3	756.9	909.3	1000.0
57.5°	829.8	825.7	777.4	762.7	604.8	458.6	397.6	591.1	595.2	792.8	908.6
60°	779.1	772.3	729.5	710.6	558.2	402.4	357.9	551.4	455.5	710.6	837.3
62.5°	723.0	710.6	681.5	661.3	519.9	375.0	330.5	510.3	355.5	617.5	768.8
65°	635.3	626.7	607.9	585.6	458.9	332.2	294.5	424.7	277.4	422.9	667.8
67.5°	539.7	534.6	523.6	498.6	398.6	298.6	261.3	306.9	211.0	268.5	571.6
70°	479.5	474.3	467.5	445.2	356.2	274.0	238.0	239.7	150.7	198.6	508.6
72.5°	412.3	411.3	407.2	384.9	312.3	247.9	218.8	206.9	127.4	156.2	444.2
75°	320.2	318.5	316.8	301.4	246.6	205.5	186.6	161.0	128.4	111.3	347.6
77.5°	229.8	228.8	229.1	219.5	182.5	158.9	142.1	112.3	114.7	84.6	260.3
80°	169.5	171.2	172.9	166.1	138.7	123.3	107.9	89.0	94.2	66.8	198.6
82.5°	120.2	123.3	120.9	119.5	101.7	90.4	76.4	65.8	66.8	53.1	147.9
85°	61.6	56.5	59.9	58.2	51.4	46.2	36.0	27.4	34.2	30.8	73.6
87.5°	16.4	19.2	19.2	20.5	19.2	16.4	11.0	6.8	12.3	15.1	30.1
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°	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9	1809.9
2.5°	1829.1	1829.1	1841.5	1844.2	1846.9	1842.8	1846.9	1844.2	1841.5	1829.1	1829.1
5°	1856.2	1856.2	1873.3	1878.4	1878.4	1875.0	1878.4	1878.4	1873.3	1856.2	1856.2
7.5°	1858.6	1861.3	1878.4	1882.2	1885.3	1880.1	1885.3	1882.2	1878.4	1861.3	1858.6
10°	1854.5	1861.3	1878.4	1883.6	1885.3	1880.1	1885.3	1883.6	1878.4	1861.3	1854.5
12.5°	1849.0	1854.5	1871.6	1875.4	1878.4	1874.7	1878.4	1875.4	1871.6	1854.5	1849.0
15°	1830.5	1837.3	1856.2	1859.6	1863.0	1857.9	1863.0	1859.6	1856.2	1837.3	1830.5
17.5°	1804.8	1813.4	1830.5	1836.0	1837.7	1831.2	1837.7	1836.0	1830.5	1813.4	1804.8
20°	1784.3	1792.8	1809.9	1816.8	1818.5	1813.4	1818.5	1816.8	1809.9	1792.8	1784.3
22.5°	1758.2	1772.3	1788.0	1790.8	1788.4	1783.2	1788.4	1790.8	1788.0	1772.3	1758.2
25°	1720.9	1732.9	1738.0	1738.0	1738.0	1732.9	1738.0	1738.0	1738.0	1732.9	1720.9
27.5°	1673.3	1679.5	1682.5	1685.3	1688.7	1685.3	1688.7	1685.3	1682.5	1679.5	1673.3
30°	1640.4	1637.0	1645.6	1652.4	1655.8	1652.4	1655.8	1652.4	1645.6	1637.0	1640.4
32.5°	1595.2	1597.3	1609.9	1614.1	1614.7	1611.3	1614.7	1614.1	1609.9	1597.3	1595.2
35°	1529.1	1537.7	1546.2	1549.7	1551.4	1546.2	1551.4	1549.7	1546.2	1537.7	1529.1
37.5°	1459.3	1474.3	1480.5	1476.7	1477.1	1471.6	1477.1	1476.7	1480.5	1474.3	1459.3
40°	1412.7	1426.4	1429.8	1424.7	1426.4	1419.5	1426.4	1424.7	1429.8	1426.4	1412.7
42.5°	1368.8	1379.8	1376.4	1369.9	1368.8	1366.1	1368.8	1369.9	1376.4	1379.8	1368.8
45°	1296.2	1301.4	1286.0	1280.8	1277.4	1274.0	1277.4	1280.8	1286.0	1301.4	1296.2
47.5°	1216.8	1209.9	1195.2	1187.3	1177.7	1171.2	1177.7	1187.3	1195.2	1209.9	1216.8
50°	1166.1	1145.6	1133.6	1114.7	1107.9	1109.6	1107.9	1114.7	1133.6	1145.6	1166.1
52.5°	1104.5	1079.8	1061.0	1044.9	1039.4	1038.4	1039.4	1044.9	1061.0	1079.8	1104.5
55°	1015.4	977.7	946.9	938.4	936.7	940.1	936.7	938.4	946.9	977.7	1015.4
57.5°	906.2	869.2	843.8	837.0	831.2	825.7	831.2	837.0	843.8	869.2	906.2
60°	832.2	798.0	774.0	767.1	751.7	744.9	751.7	767.1	774.0	798.0	832.2
62.5°	766.4	725.3	706.9	693.2	681.9	670.9	681.9	693.2	706.9	725.3	766.4
65°	671.2	623.3	604.5	592.5	571.9	566.8	571.9	592.5	604.5	623.3	671.2
67.5°	567.1	525.3	501.7	485.6	472.6	472.3	472.6	485.6	501.7	525.3	567.1
70°	500.0	462.3	440.1	421.2	411.0	409.2	411.0	421.2	440.1	462.3	500.0
72.5°	434.2	397.9	378.4	361.0	352.1	350.3	352.1	361.0	378.4	397.9	434.2
75°	340.8	306.5	291.1	279.1	272.3	268.8	272.3	279.1	291.1	306.5	340.8
77.5°	252.1	224.3	216.4	204.1	198.3	197.9	198.3	204.1	216.4	224.3	252.1
80°	198.6	176.4	164.4	157.5	155.8	154.1	155.8	157.5	164.4	176.4	198.6
82.5°	143.8	131.2	123.3	119.2	118.8	115.8	118.8	119.2	123.3	131.2	143.8
85°	77.1	73.6	71.9	70.2	68.5	68.5	68.5	70.2	71.9	73.6	77.1
87.5°	31.5	32.9	32.9	34.2	35.6	34.2	35.6	34.2	32.9	32.9	31.5
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-125D-840-1D-UNV-STD-W-4

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1809.9	1809.9	1809.9	1809.9
2.5°	1833.2	1830.5	1822.3	1822.3
5°	1857.9	1851.0	1832.2	1818.5
7.5°	1863.7	1853.8	1829.1	1801.4
10°	1859.6	1851.0	1823.6	1787.7
12.5°	1851.4	1841.5	1815.4	1768.5
15°	1833.9	1818.5	1794.5	1736.3
17.5°	1806.2	1792.5	1764.1	1690.1
20°	1784.3	1770.6	1738.0	1655.8
22.5°	1758.2	1744.5	1710.6	1609.3
25°	1715.8	1695.2	1666.1	1529.1
27.5°	1668.5	1646.2	1604.8	1441.1
30°	1637.0	1607.9	1551.4	1376.7
32.5°	1602.8	1568.2	1471.9	1304.1
35°	1541.1	1512.0	1375.0	1162.7
37.5°	1474.0	1452.7	1287.3	1003.4
40°	1424.7	1407.5	1203.8	907.5
42.5°	1364.4	1359.6	1112.0	836.3
45°	1282.5	1282.5	1058.2	750.0
47.5°	1199.0	1199.7	982.9	727.4
50°	1145.6	1128.4	928.1	726.0
52.5°	1090.8	1036.7	861.0	672.6
55°	1000.0	909.3	756.9	611.3
57.5°	908.6	792.8	595.2	591.1
60°	837.3	710.6	455.5	551.4
62.5°	768.8	617.5	355.5	510.3
65°	667.8	422.9	277.4	424.7
67.5°	571.6	268.5	211.0	306.9
70°	508.6	198.6	150.7	239.7
72.5°	444.2	156.2	127.4	206.9
75°	347.6	111.3	128.4	161.0
77.5°	260.3	84.6	114.7	112.3
80°	198.6	66.8	94.2	89.0
82.5°	147.9	53.1	66.8	65.8
85°	73.6	30.8	34.2	27.4
87.5°	30.1	15.1	12.3	6.8
90°	0.0	0.0	0.0	0.0

(END OF REPORT)