

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-940-1D-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-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 500 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

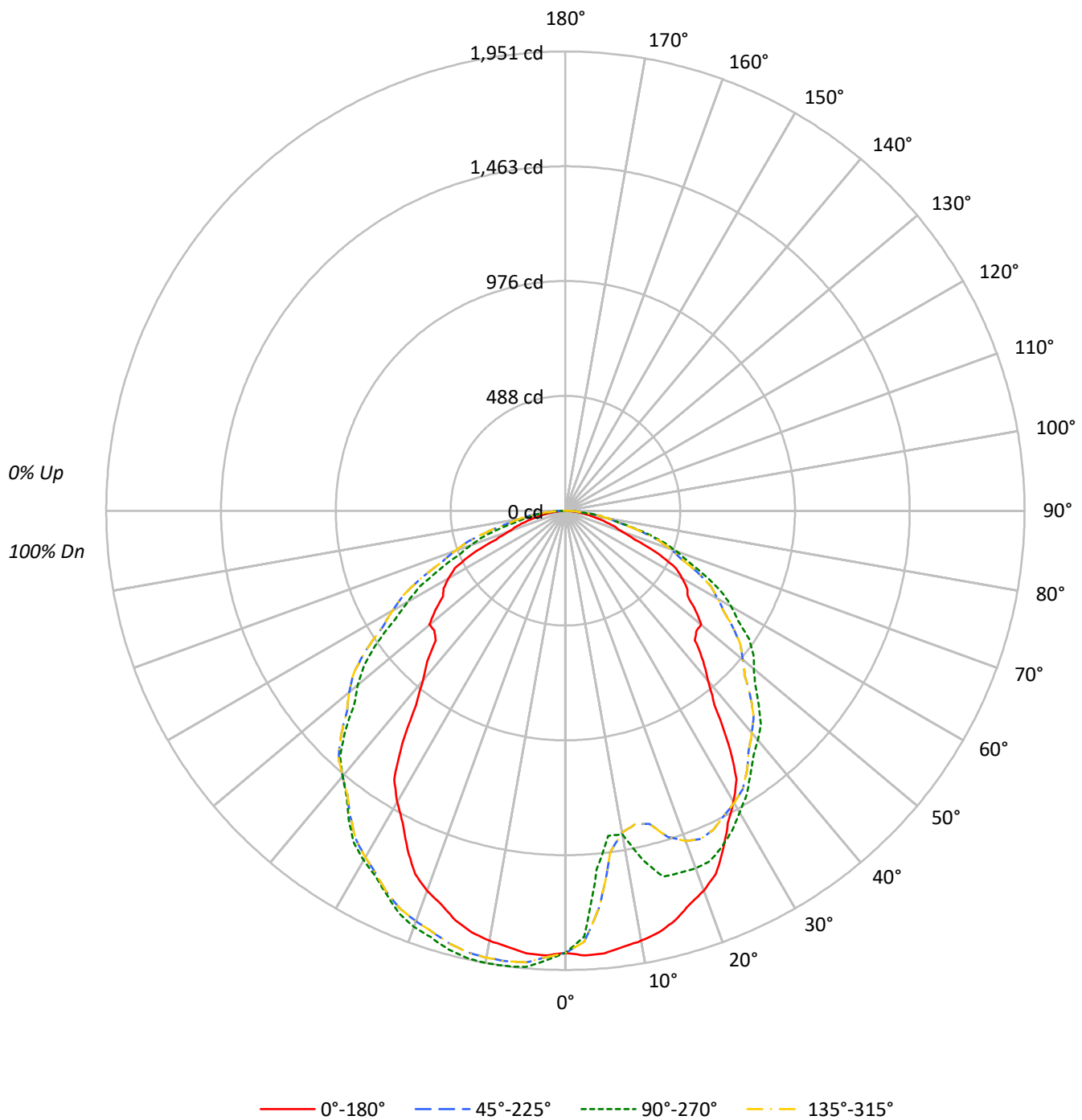
Lumens per Lamp: N/A
Luminaire Lumens: 4867.1 lumens
Efficiency: N/A
Efficacy: 91.1 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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				0
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°	5776	5776	5776	5776
5°	5826	4723	5826	6007
10°	5793	4356	5793	6093
15°	5737	5126	5737	6138
20°	5623	5292	5623	6158
25°	5385	5342	5385	6102
30°	5073	5256	5073	6089
35°	4530	5143	4530	6024
40°	3781	5107	3781	5914
45°	3385	5046	3385	5750
50°	3605	4999	3605	5509
55°	3401	5107	3401	5230
60°	3519	5006	3519	4754
65°	3207	4784	3207	4280
70°	2237	4490	2237	3819
75°	1984	3970	1984	3315
80°	1636	3083	1636	2832
85°	1002	2131	1002	2509

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 5873 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	169.3	3.5
10°-20°	481.2	9.9
20°-30°	743.6	15.3
30°-40°	888.4	18.3
40°-50°	894.1	18.4
50°-60°	776.3	16.0
60°-70°	549.5	11.3
70°-80°	290.7	6.0
80°-90°	73.9	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°	1394.1	28.6
0°-40°	2282.5	46.9
0°-60°	3952.9	81.2
0°-90°	4867.1	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	4867.1	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	1878	1878	1878	1878	1878	
5°	1887	1530	1887	1946	1887	179
15°	1802	1610	1802	1928	1802	507
25°	1587	1574	1587	1798	1587	728
35°	1206	1370	1206	1604	1206	745
45°	778	1160	778	1322	778	627
55°	634	952	634	976	634	584
65°	441	657	441	588	441	419
75°	167	334	167	279	167	176
85°	28	60	28	71	28	41
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°	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2
2.5°	1891.0	1876.7	1871.1	1859.7	1838.4	1827.0	1835.5	1821.3	1827.0	1811.4	1827.0
5°	1887.1	1855.1	1828.4	1784.0	1720.0	1645.4	1627.6	1581.4	1553.0	1529.9	1553.0
7.5°	1869.3	1814.6	1733.2	1597.4	1488.3	1435.0	1421.9	1408.7	1405.2	1393.4	1405.2
10°	1855.1	1780.4	1629.4	1476.6	1400.2	1375.3	1380.6	1386.0	1396.6	1394.9	1396.6
12.5°	1835.2	1720.7	1521.4	1415.5	1364.6	1363.9	1403.4	1474.1	1523.1	1519.9	1523.1
15°	1801.8	1606.3	1419.7	1352.2	1336.2	1418.0	1561.9	1595.6	1608.1	1609.9	1608.1
17.5°	1753.8	1494.4	1354.7	1310.3	1364.6	1542.3	1586.0	1601.3	1612.0	1612.7	1612.0
20°	1718.2	1437.5	1322.0	1291.8	1435.7	1549.4	1576.1	1595.6	1613.4	1617.0	1613.4
22.5°	1669.9	1397.7	1287.9	1279.0	1475.5	1542.3	1566.1	1595.6	1610.6	1609.9	1610.6
25°	1586.8	1348.7	1245.6	1265.1	1480.1	1505.0	1551.2	1570.8	1572.5	1574.3	1572.5
27.5°	1495.4	1305.7	1196.2	1274.4	1451.4	1469.1	1518.9	1528.8	1535.6	1532.7	1535.6
30°	1428.6	1275.8	1162.1	1275.8	1428.6	1439.3	1489.0	1496.1	1487.3	1480.1	1487.3
32.5°	1353.3	1238.8	1129.4	1265.9	1394.5	1409.4	1449.2	1446.4	1437.5	1431.8	1437.5
35°	1206.5	1176.3	1069.7	1233.2	1336.2	1355.8	1378.9	1377.1	1375.3	1370.0	1375.3
37.5°	1041.3	1102.4	1010.7	1182.3	1280.1	1278.6	1313.1	1320.6	1318.8	1312.1	1318.8
40°	941.7	1041.3	973.7	1142.5	1240.3	1226.0	1270.5	1279.4	1277.6	1272.2	1277.6
42.5°	867.8	960.2	931.1	1094.2	1191.9	1174.9	1229.2	1238.1	1233.5	1229.6	1233.5
45°	778.3	794.3	865.3	1016.4	1110.6	1108.8	1167.4	1176.3	1165.6	1160.3	1165.6
47.5°	754.8	640.4	793.6	926.1	1029.9	1036.6	1099.5	1107.4	1097.8	1093.1	1097.8
50°	753.4	565.0	741.0	856.5	977.3	989.7	1055.5	1059.0	1046.6	1044.8	1046.6
52.5°	698.0	522.4	679.8	795.3	931.8	947.1	1007.1	1006.4	1005.4	1007.8	1005.4
55°	634.3	470.9	573.9	705.4	861.8	881.3	934.6	936.4	948.9	952.4	948.9
57.5°	613.4	412.6	475.8	627.6	791.4	806.7	856.8	861.1	869.6	869.3	869.6
60°	572.2	371.4	417.6	579.3	737.4	757.0	801.4	808.5	815.6	813.8	815.6
62.5°	529.5	342.9	389.1	539.5	686.2	707.2	737.4	750.2	753.0	749.8	753.0
65°	440.7	305.6	344.7	476.2	607.7	630.8	650.3	659.2	661.0	657.4	661.0
67.5°	318.4	271.2	309.9	413.7	517.4	543.4	554.7	560.1	558.3	564.7	558.3
70°	248.8	247.0	284.3	369.6	462.0	485.1	492.2	497.5	495.8	499.3	495.8
72.5°	214.6	227.1	257.3	324.1	399.4	422.5	426.8	427.9	433.2	429.7	433.2
75°	167.0	193.7	213.2	255.9	312.7	328.7	330.5	332.3	328.7	334.1	328.7
77.5°	116.6	147.5	164.9	189.4	227.8	237.7	237.4	238.5	235.6	235.3	235.6
80°	92.4	111.9	127.9	143.9	172.4	179.5	177.7	175.9	175.9	174.1	175.9
82.5°	68.2	79.2	93.8	105.5	124.0	125.4	127.9	124.7	124.7	127.2	124.7
85°	28.4	37.3	48.0	53.3	60.4	62.2	58.6	64.0	60.4	60.4	60.4
87.5°	7.1	11.4	17.1	19.9	21.3	19.9	19.9	17.1	17.1	17.1	17.1
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°	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2
2.5°	1821.3	1835.5	1827.0	1838.4	1859.7	1871.1	1876.7	1891.0	1891.0	1899.5	1902.3
5°	1581.4	1627.6	1645.4	1720.0	1784.0	1828.4	1855.1	1887.1	1901.3	1920.8	1927.9
7.5°	1408.7	1421.9	1435.0	1488.3	1597.4	1733.2	1814.6	1869.3	1898.1	1923.7	1934.0
10°	1386.0	1380.6	1375.3	1400.2	1476.6	1629.4	1780.4	1855.1	1892.4	1920.8	1929.7
12.5°	1474.1	1403.4	1363.9	1364.6	1415.5	1521.4	1720.7	1835.2	1883.9	1910.9	1921.2
15°	1595.6	1561.9	1418.0	1336.2	1352.2	1419.7	1606.3	1801.8	1862.2	1887.1	1903.0
17.5°	1601.3	1586.0	1542.3	1364.6	1310.3	1354.7	1494.4	1753.8	1830.5	1860.0	1874.3
20°	1595.6	1576.1	1549.4	1435.7	1291.8	1322.0	1437.5	1718.2	1803.5	1837.3	1851.5
22.5°	1595.6	1566.1	1542.3	1475.5	1279.0	1287.9	1397.7	1669.9	1775.1	1810.3	1824.5
25°	1570.8	1551.2	1505.0	1480.1	1265.1	1245.6	1348.7	1586.8	1728.9	1759.1	1780.4
27.5°	1528.8	1518.9	1469.1	1451.4	1274.4	1196.2	1305.7	1495.4	1665.3	1708.3	1731.4
30°	1496.1	1489.0	1439.3	1428.6	1275.8	1162.1	1275.8	1428.6	1609.9	1668.5	1698.7
32.5°	1446.4	1449.2	1409.4	1394.5	1265.9	1129.4	1238.8	1353.3	1527.4	1627.3	1663.2
35°	1377.1	1378.9	1355.8	1336.2	1233.2	1069.7	1176.3	1206.5	1426.8	1569.0	1599.2
37.5°	1320.6	1313.1	1278.6	1280.1	1182.3	1010.7	1102.4	1041.3	1335.9	1507.5	1529.5
40°	1279.4	1270.5	1226.0	1240.3	1142.5	973.7	1041.3	941.7	1249.1	1460.6	1478.4
42.5°	1238.1	1229.2	1174.9	1191.9	1094.2	931.1	960.2	867.8	1153.9	1410.8	1415.8
45°	1176.3	1167.4	1108.8	1110.6	1016.4	865.3	794.3	778.3	1098.1	1330.9	1330.9
47.5°	1107.4	1099.5	1036.6	1029.9	926.1	793.6	640.4	754.8	1019.9	1244.9	1244.2
50°	1059.0	1055.5	989.7	977.3	856.5	741.0	565.0	753.4	963.1	1171.0	1188.7
52.5°	1006.4	1007.1	947.1	931.8	795.3	679.8	522.4	698.0	893.4	1075.7	1131.9
55°	936.4	934.6	881.3	861.8	705.4	573.9	470.9	634.3	785.4	943.5	1037.7
57.5°	861.1	856.8	806.7	791.4	627.6	475.8	412.6	613.4	617.6	822.7	942.8
60°	808.5	801.4	757.0	737.4	579.3	417.6	371.4	572.2	472.7	737.4	868.9
62.5°	750.2	737.4	707.2	686.2	539.5	389.1	342.9	529.5	368.9	640.7	797.8
65°	659.2	650.3	630.8	607.7	476.2	344.7	305.6	440.7	287.9	438.9	693.0
67.5°	560.1	554.7	543.4	517.4	413.7	309.9	271.2	318.4	218.9	278.6	593.1
70°	497.5	492.2	485.1	462.0	369.6	284.3	247.0	248.8	156.4	206.1	527.7
72.5°	427.9	426.8	422.5	399.4	324.1	257.3	227.1	214.6	132.2	162.1	460.9
75°	332.3	330.5	328.7	312.7	255.9	213.2	193.7	167.0	133.3	115.5	360.7
77.5°	238.5	237.4	237.7	227.8	189.4	164.9	147.5	116.6	119.1	87.8	270.1
80°	175.9	177.7	179.5	172.4	143.9	127.9	111.9	92.4	97.7	69.3	206.1
82.5°	124.7	127.9	125.4	124.0	105.5	93.8	79.2	68.2	69.3	55.1	153.5
85°	64.0	58.6	62.2	60.4	53.3	48.0	37.3	28.4	35.5	32.0	76.4
87.5°	17.1	19.9	19.9	21.3	19.9	17.1	11.4	7.1	12.8	15.6	31.3
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°	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2	1878.2
2.5°	1898.1	1898.1	1910.9	1913.7	1916.5	1912.3	1916.5	1913.7	1910.9	1898.1	1898.1
5°	1926.1	1926.1	1943.9	1949.2	1949.2	1945.7	1949.2	1949.2	1943.9	1926.1	1926.1
7.5°	1928.6	1931.5	1949.2	1953.2	1956.3	1951.0	1956.3	1953.2	1949.2	1931.5	1928.6
10°	1924.4	1931.5	1949.2	1954.6	1956.3	1951.0	1956.3	1954.6	1949.2	1931.5	1924.4
12.5°	1918.7	1924.4	1942.1	1946.0	1949.2	1945.3	1949.2	1946.0	1942.1	1924.4	1918.7
15°	1899.5	1906.6	1926.1	1929.7	1933.2	1927.9	1933.2	1929.7	1926.1	1906.6	1899.5
17.5°	1872.8	1881.7	1899.5	1905.2	1907.0	1900.2	1907.0	1905.2	1899.5	1881.7	1872.8
20°	1851.5	1860.4	1878.2	1885.3	1887.1	1881.7	1887.1	1885.3	1878.2	1860.4	1851.5
22.5°	1824.5	1839.1	1855.4	1858.3	1855.8	1850.4	1855.8	1858.3	1855.4	1839.1	1824.5
25°	1785.8	1798.2	1803.5	1803.5	1803.5	1798.2	1803.5	1803.5	1803.5	1798.2	1785.8
27.5°	1736.4	1742.8	1746.0	1748.8	1752.4	1748.8	1752.4	1748.8	1746.0	1742.8	1736.4
30°	1702.3	1698.7	1707.6	1714.7	1718.2	1714.7	1718.2	1714.7	1707.6	1698.7	1702.3
32.5°	1655.3	1657.5	1670.6	1674.9	1675.6	1672.0	1675.6	1674.9	1670.6	1657.5	1655.3
35°	1586.8	1595.6	1604.5	1608.1	1609.9	1604.5	1609.9	1608.1	1604.5	1595.6	1586.8
37.5°	1514.3	1529.9	1536.3	1532.4	1532.7	1527.1	1532.7	1532.4	1536.3	1529.9	1514.3
40°	1465.9	1480.1	1483.7	1478.4	1480.1	1473.0	1480.1	1478.4	1483.7	1480.1	1465.9
42.5°	1420.4	1431.8	1428.3	1421.5	1420.4	1417.6	1420.4	1421.5	1428.3	1431.8	1420.4
45°	1345.1	1350.4	1334.4	1329.1	1325.6	1322.0	1325.6	1329.1	1334.4	1350.4	1345.1
47.5°	1262.7	1255.5	1240.3	1232.1	1222.1	1215.4	1222.1	1232.1	1240.3	1255.5	1262.7
50°	1210.1	1188.7	1176.3	1156.8	1149.6	1151.4	1149.6	1156.8	1176.3	1188.7	1210.1
52.5°	1146.1	1120.5	1101.0	1084.3	1078.6	1077.5	1078.6	1084.3	1101.0	1120.5	1146.1
55°	1053.7	1014.6	982.6	973.7	972.0	975.5	972.0	973.7	982.6	1014.6	1053.7
57.5°	940.3	901.9	875.6	868.5	862.5	856.8	862.5	868.5	875.6	901.9	940.3
60°	863.6	828.0	803.2	796.0	780.1	772.9	780.1	796.0	803.2	828.0	863.6
62.5°	795.3	752.7	733.5	719.3	707.6	696.2	707.6	719.3	733.5	752.7	795.3
65°	696.5	646.8	627.2	614.8	593.5	588.1	593.5	614.8	627.2	646.8	696.5
67.5°	588.5	545.1	520.6	503.9	490.4	490.1	490.4	503.9	520.6	545.1	588.5
70°	518.8	479.8	456.7	437.1	426.5	424.7	426.5	437.1	456.7	479.8	518.8
72.5°	450.6	412.9	392.7	374.6	365.3	363.6	365.3	374.6	392.7	412.9	450.6
75°	353.6	318.1	302.1	289.6	282.5	279.0	282.5	289.6	302.1	318.1	353.6
77.5°	261.6	232.8	224.6	211.8	205.8	205.4	205.8	211.8	224.6	232.8	261.6
80°	206.1	183.0	170.6	163.5	161.7	159.9	161.7	163.5	170.6	183.0	206.1
82.5°	149.3	136.1	127.9	123.7	123.3	120.1	123.3	123.7	127.9	136.1	149.3
85°	80.0	76.4	74.6	72.9	71.1	71.1	71.1	72.9	74.6	76.4	80.0
87.5°	32.7	34.1	34.1	35.5	37.0	35.5	37.0	35.5	34.1	34.1	32.7
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-050D-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	1878.2	1878.2	1878.2	1878.2
2.5°	1902.3	1899.5	1891.0	1891.0
5°	1927.9	1920.8	1901.3	1887.1
7.5°	1934.0	1923.7	1898.1	1869.3
10°	1929.7	1920.8	1892.4	1855.1
12.5°	1921.2	1910.9	1883.9	1835.2
15°	1903.0	1887.1	1862.2	1801.8
17.5°	1874.3	1860.0	1830.5	1753.8
20°	1851.5	1837.3	1803.5	1718.2
22.5°	1824.5	1810.3	1775.1	1669.9
25°	1780.4	1759.1	1728.9	1586.8
27.5°	1731.4	1708.3	1665.3	1495.4
30°	1698.7	1668.5	1609.9	1428.6
32.5°	1663.2	1627.3	1527.4	1353.3
35°	1599.2	1569.0	1426.8	1206.5
37.5°	1529.5	1507.5	1335.9	1041.3
40°	1478.4	1460.6	1249.1	941.7
42.5°	1415.8	1410.8	1153.9	867.8
45°	1330.9	1330.9	1098.1	778.3
47.5°	1244.2	1244.9	1019.9	754.8
50°	1188.7	1171.0	963.1	753.4
52.5°	1131.9	1075.7	893.4	698.0
55°	1037.7	943.5	785.4	634.3
57.5°	942.8	822.7	617.6	613.4
60°	868.9	737.4	472.7	572.2
62.5°	797.8	640.7	368.9	529.5
65°	693.0	438.9	287.9	440.7
67.5°	593.1	278.6	218.9	318.4
70°	527.7	206.1	156.4	248.8
72.5°	460.9	162.1	132.2	214.6
75°	360.7	115.5	133.3	167.0
77.5°	270.1	87.8	119.1	116.6
80°	206.1	69.3	97.7	92.4
82.5°	153.5	55.1	69.3	68.2
85°	76.4	32.0	35.5	28.4
87.5°	31.3	15.6	12.8	7.1
90°	0.0	0.0	0.0	0.0

(END OF REPORT)