

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-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-125D-830-1D-UNV-STD-W-6
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1250 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

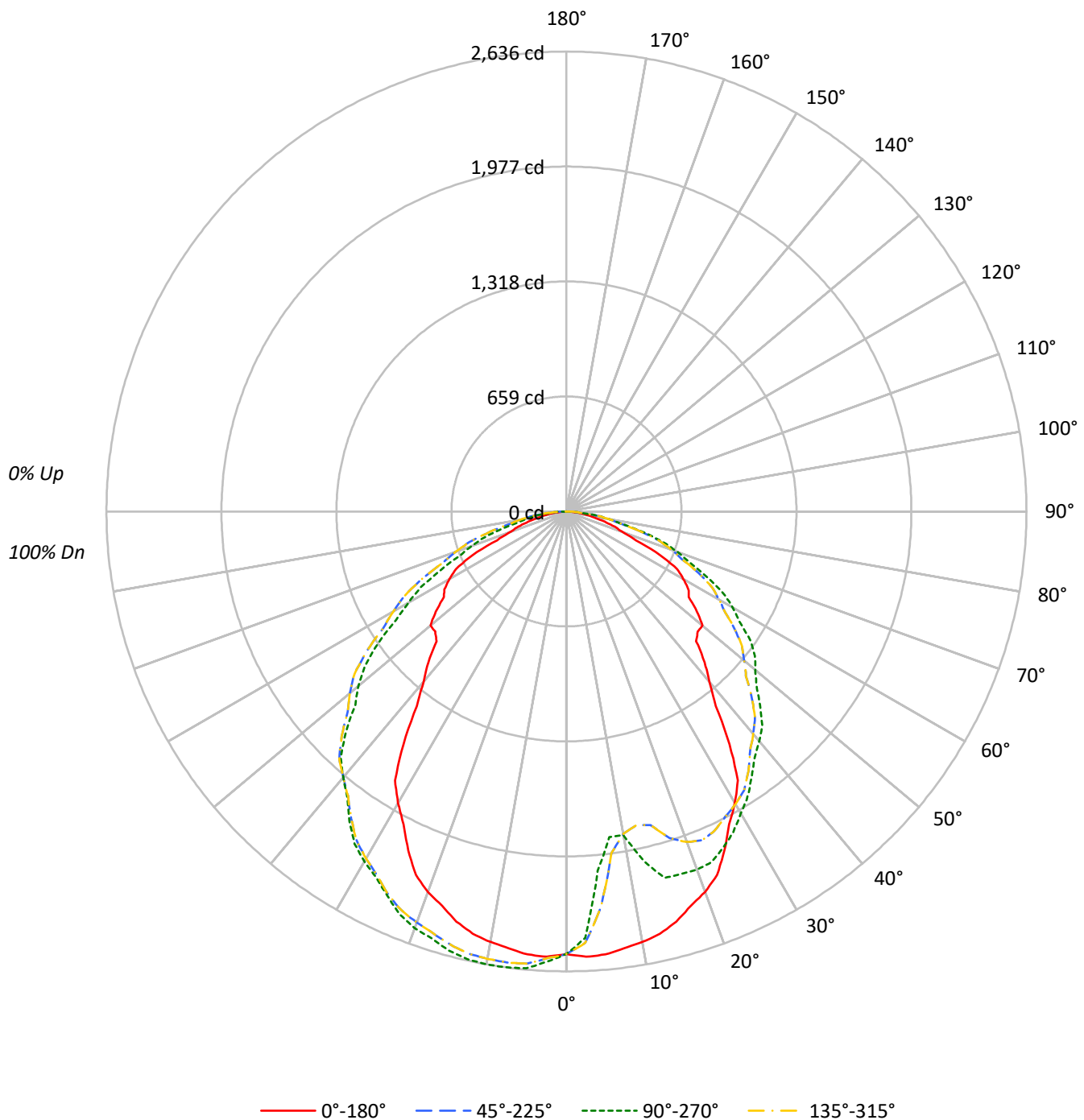
Lumens per Lamp: N/A
Luminaire Lumens: 6574.5 lumens
Efficiency: N/A
Efficacy: 94.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 6' x H: 0')
CIE Type: Direct

Input Watts (W): 69.7
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		0
RCR																	
0	119	119	119	119	116	116	116	116	111	111	111		106	106	106		100
1	109	105	100	97	106	102	98	95	98	95	92		94	92	89		85
2	99	91	85	79	97	90	83	78	86	81	76		83	78	75		71
3	91	81	73	66	88	79	72	66	76	70	64		73	68	63		60
4	83	71	63	56	81	70	62	56	68	61	55		65	59	54		51
5	77	64	55	49	75	63	54	48	61	53	48		59	52	47		45
6	71	58	49	42	69	57	48	42	55	47	42		53	47	41		39
7	66	52	44	38	64	51	43	37	50	43	37		48	42	37		35
8	61	48	39	33	60	47	39	33	46	38	33		44	38	33		31
9	57	44	36	30	56	43	35	30	42	35	30		41	34	30		28
10	54	40	33	27	52	40	32	27	39	32	27		38	32	27		25

AVERAGE LUMINANCE (cd/sqm):

	0°	90°	180°	270°
0°	15605	15605	15605	15605
5°	15739	12760	15739	16228
10°	15651	11768	15651	16461
15°	15498	13847	15498	16584
20°	15192	14297	15192	16638
25°	14547	14433	14547	16485
30°	13706	14200	13706	16450
35°	12238	13896	12238	16274
40°	10214	13799	10214	15977
45°	9145	13634	9145	15534
50°	9738	13505	9738	14884
55°	9189	13796	9189	14130
60°	9508	13523	9508	12844
65°	8664	12925	8664	11563
70°	6043	12130	6043	10317
75°	5361	10723	5361	8955
80°	4421	8331	4421	7651
85°	2710	5759	2710	6775

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 15868 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	228.7	3.5
10°-20°	650.0	9.9
20°-30°	1004.5	15.3
30°-40°	1200.1	18.3
40°-50°	1207.8	18.4
50°-60°	1048.6	16.0
60°-70°	742.3	11.3
70°-80°	392.6	6.0
80°-90°	99.9	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°	1883.1	28.6
0°-40°	3083.2	46.9
0°-60°	5339.7	81.2
0°-90°	6574.5	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	6574.5	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2537	2537	2537	2537	2537	
5°	2549	2067	2549	2628	2549	242
15°	2434	2175	2434	2604	2434	684
25°	2143	2127	2143	2429	2143	983
35°	1630	1851	1630	2167	1630	1006
45°	1051	1567	1051	1786	1051	847
55°	857	1286	857	1318	857	788
65°	595	888	595	794	595	566
75°	226	451	226	377	226	238
85°	38	82	38	96	38	55
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°	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1
2.5°	2554.3	2535.1	2527.5	2512.1	2483.3	2467.9	2479.5	2460.3	2467.9	2446.8	2467.9
5°	2549.1	2505.9	2469.9	2409.8	2323.4	2222.6	2198.6	2136.2	2097.8	2066.6	2097.8
7.5°	2525.1	2451.1	2341.2	2157.8	2010.4	1938.4	1920.7	1902.9	1898.1	1882.3	1898.1
10°	2505.9	2405.0	2201.0	1994.6	1891.4	1857.8	1865.0	1872.2	1886.6	1884.2	1886.6
12.5°	2479.0	2324.4	2055.1	1912.0	1843.4	1842.4	1895.7	1991.2	2057.5	2053.2	2057.5
15°	2433.8	2169.8	1917.8	1826.6	1805.0	1915.4	2109.8	2155.4	2172.2	2174.6	2172.2
17.5°	2369.0	2018.6	1829.9	1769.9	1843.4	2083.4	2142.5	2163.1	2177.5	2178.5	2177.5
20°	2321.0	1941.8	1785.8	1745.0	1939.4	2093.0	2129.0	2155.4	2179.4	2184.2	2179.4
22.5°	2255.7	1888.0	1739.7	1727.7	1993.2	2083.4	2115.6	2155.4	2175.6	2174.6	2175.6
25°	2143.4	1821.8	1682.6	1709.0	1999.4	2033.0	2095.4	2121.8	2124.2	2126.6	2124.2
27.5°	2020.0	1763.7	1615.8	1721.5	1960.5	1984.5	2051.7	2065.2	2074.3	2070.5	2074.3
30°	1929.8	1723.4	1569.8	1723.4	1929.8	1944.2	2011.4	2021.0	2009.0	1999.4	2009.0
32.5°	1828.0	1673.5	1525.6	1709.9	1883.7	1903.9	1957.6	1953.8	1941.8	1934.1	1941.8
35°	1629.8	1589.0	1444.9	1665.8	1805.0	1831.4	1862.6	1860.2	1857.8	1850.6	1857.8
37.5°	1406.5	1489.1	1365.3	1597.1	1729.1	1727.2	1773.8	1783.9	1781.5	1772.3	1781.5
40°	1272.1	1406.5	1315.3	1543.4	1675.4	1656.2	1716.2	1728.2	1725.8	1718.6	1725.8
42.5°	1172.3	1297.1	1257.7	1478.1	1610.1	1587.0	1660.5	1672.5	1666.2	1661.0	1666.2
45°	1051.3	1072.9	1168.9	1372.9	1500.2	1497.8	1577.0	1589.0	1574.6	1567.4	1574.6
47.5°	1019.6	865.0	1071.9	1251.0	1391.2	1400.3	1485.3	1495.8	1482.9	1476.6	1482.9
50°	1017.7	763.3	1000.9	1156.9	1320.1	1336.9	1425.7	1430.5	1413.7	1411.3	1413.7
52.5°	942.8	705.7	918.3	1074.3	1258.7	1279.3	1360.5	1359.5	1358.1	1361.4	1358.1
55°	856.9	636.1	775.3	952.9	1164.1	1190.5	1262.5	1264.9	1281.7	1286.5	1281.7
57.5°	828.6	557.3	642.8	847.8	1069.1	1089.7	1157.4	1163.2	1174.7	1174.2	1174.7
60°	772.9	501.7	564.1	782.5	996.1	1022.5	1082.5	1092.1	1101.7	1099.3	1101.7
62.5°	715.3	463.2	525.7	728.7	927.0	955.3	996.1	1013.4	1017.2	1012.9	1017.2
65°	595.3	412.8	465.6	643.3	820.9	852.1	878.5	890.5	892.9	888.1	892.9
67.5°	430.1	366.3	418.6	558.8	699.0	734.0	749.4	756.6	754.2	762.8	754.2
70°	336.0	333.6	384.0	499.3	624.1	655.3	664.9	672.1	669.7	674.5	669.7
72.5°	289.9	306.8	347.6	437.8	539.6	570.8	576.5	578.0	585.2	580.4	585.2
75°	225.6	261.6	288.0	345.6	422.4	444.0	446.4	448.8	444.0	451.2	444.0
77.5°	157.5	199.2	222.7	255.9	307.7	321.2	320.7	322.1	318.3	317.8	318.3
80°	124.8	151.2	172.8	194.4	232.8	242.4	240.0	237.6	237.6	235.2	237.6
82.5°	92.2	107.1	126.7	142.6	167.5	169.5	172.8	168.5	168.5	171.9	168.5
85°	38.4	50.4	64.8	72.0	81.6	84.0	79.2	86.4	81.6	81.6	81.6
87.5°	9.6	15.4	23.0	26.9	28.8	26.9	26.9	23.0	23.0	23.0	23.0
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°	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1
2.5°	2460.3	2479.5	2467.9	2483.3	2512.1	2527.5	2535.1	2554.3	2554.3	2565.9	2569.7
5°	2136.2	2198.6	2222.6	2323.4	2409.8	2469.9	2505.9	2549.1	2568.3	2594.7	2604.3
7.5°	1902.9	1920.7	1938.4	2010.4	2157.8	2341.2	2451.1	2525.1	2563.9	2598.5	2612.4
10°	1872.2	1865.0	1857.8	1891.4	1994.6	2201.0	2405.0	2505.9	2556.3	2594.7	2606.7
12.5°	1991.2	1895.7	1842.4	1843.4	1912.0	2055.1	2324.4	2479.0	2544.7	2581.2	2595.1
15°	2155.4	2109.8	1915.4	1805.0	1826.6	1917.8	2169.8	2433.8	2515.5	2549.1	2570.7
17.5°	2163.1	2142.5	2083.4	1843.4	1769.9	1829.9	2018.6	2369.0	2472.7	2512.6	2531.8
20°	2155.4	2129.0	2093.0	1939.4	1745.0	1785.8	1941.8	2321.0	2436.2	2481.9	2501.1
22.5°	2155.4	2115.6	2083.4	1993.2	1727.7	1739.7	1888.0	2255.7	2397.8	2445.4	2464.6
25°	2121.8	2095.4	2033.0	1999.4	1709.0	1682.6	1821.8	2143.4	2335.4	2376.2	2405.0
27.5°	2065.2	2051.7	1984.5	1960.5	1721.5	1615.8	1763.7	2020.0	2249.5	2307.6	2338.8
30°	2021.0	2011.4	1944.2	1929.8	1723.4	1569.8	1723.4	1929.8	2174.6	2253.8	2294.6
32.5°	1953.8	1957.6	1903.9	1883.7	1709.9	1525.6	1673.5	1828.0	2063.3	2198.1	2246.6
35°	1860.2	1862.6	1831.4	1805.0	1665.8	1444.9	1589.0	1629.8	1927.4	2119.4	2160.2
37.5°	1783.9	1773.8	1727.2	1729.1	1597.1	1365.3	1489.1	1406.5	1804.5	2036.4	2066.1
40°	1728.2	1716.2	1656.2	1675.4	1543.4	1315.3	1406.5	1272.1	1687.4	1973.0	1997.0
42.5°	1672.5	1660.5	1587.0	1610.1	1478.1	1257.7	1297.1	1172.3	1558.7	1905.8	1912.5
45°	1589.0	1577.0	1497.8	1500.2	1372.9	1168.9	1072.9	1051.3	1483.4	1797.8	1797.8
47.5°	1495.8	1485.3	1400.3	1391.2	1251.0	1071.9	865.0	1019.6	1377.7	1681.6	1680.7
50°	1430.5	1425.7	1336.9	1320.1	1156.9	1000.9	763.3	1017.7	1300.9	1581.8	1605.8
52.5°	1359.5	1360.5	1279.3	1258.7	1074.3	918.3	705.7	942.8	1206.8	1453.1	1529.0
55°	1264.9	1262.5	1190.5	1164.1	952.9	775.3	636.1	856.9	1060.9	1274.5	1401.7
57.5°	1163.2	1157.4	1089.7	1069.1	847.8	642.8	557.3	828.6	834.3	1111.3	1273.6
60°	1092.1	1082.5	1022.5	996.1	782.5	564.1	501.7	772.9	638.5	996.1	1173.7
62.5°	1013.4	996.1	955.3	927.0	728.7	525.7	463.2	715.3	498.3	865.5	1077.7
65°	890.5	878.5	852.1	820.9	643.3	465.6	412.8	595.3	388.8	592.9	936.1
67.5°	756.6	749.4	734.0	699.0	558.8	418.6	366.3	430.1	295.7	376.4	801.2
70°	672.1	664.9	655.3	624.1	499.3	384.0	333.6	336.0	211.2	278.4	712.9
72.5°	578.0	576.5	570.8	539.6	437.8	347.6	306.8	289.9	178.6	218.9	622.6
75°	448.8	446.4	444.0	422.4	345.6	288.0	261.6	225.6	180.0	156.0	487.2
77.5°	322.1	320.7	321.2	307.7	255.9	222.7	199.2	157.5	160.8	118.6	364.8
80°	237.6	240.0	242.4	232.8	194.4	172.8	151.2	124.8	132.0	93.6	278.4
82.5°	168.5	172.8	169.5	167.5	142.6	126.7	107.1	92.2	93.6	74.4	207.4
85°	86.4	79.2	84.0	81.6	72.0	64.8	50.4	38.4	48.0	43.2	103.2
87.5°	23.0	26.9	26.9	28.8	26.9	23.0	15.4	9.6	17.3	21.1	42.2
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°	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1	2537.1
2.5°	2563.9	2563.9	2581.2	2585.1	2588.9	2583.1	2588.9	2585.1	2581.2	2563.9	2563.9
5°	2601.9	2601.9	2625.9	2633.1	2633.1	2628.3	2633.1	2633.1	2625.9	2601.9	2601.9
7.5°	2605.2	2609.1	2633.1	2638.3	2642.7	2635.5	2642.7	2638.3	2633.1	2609.1	2605.2
10°	2599.5	2609.1	2633.1	2640.3	2642.7	2635.5	2642.7	2640.3	2633.1	2609.1	2599.5
12.5°	2591.8	2599.5	2623.5	2628.7	2633.1	2627.8	2633.1	2628.7	2623.5	2599.5	2591.8
15°	2565.9	2575.5	2601.9	2606.7	2611.5	2604.3	2611.5	2606.7	2601.9	2575.5	2565.9
17.5°	2529.9	2541.9	2565.9	2573.5	2575.9	2566.8	2575.9	2573.5	2565.9	2541.9	2529.9
20°	2501.1	2513.1	2537.1	2546.7	2549.1	2541.9	2549.1	2546.7	2537.1	2513.1	2501.1
22.5°	2464.6	2484.3	2506.3	2510.2	2506.8	2499.6	2506.8	2510.2	2506.3	2484.3	2464.6
25°	2412.2	2429.0	2436.2	2436.2	2436.2	2429.0	2436.2	2436.2	2436.2	2429.0	2412.2
27.5°	2345.5	2354.2	2358.5	2362.3	2367.1	2362.3	2367.1	2362.3	2358.5	2354.2	2345.5
30°	2299.4	2294.6	2306.6	2316.2	2321.0	2316.2	2321.0	2316.2	2306.6	2294.6	2299.4
32.5°	2236.1	2238.9	2256.7	2262.5	2263.4	2258.6	2263.4	2262.5	2256.7	2238.9	2236.1
35°	2143.4	2155.4	2167.4	2172.2	2174.6	2167.4	2174.6	2172.2	2167.4	2155.4	2143.4
37.5°	2045.5	2066.6	2075.3	2070.0	2070.5	2062.8	2070.5	2070.0	2075.3	2066.6	2045.5
40°	1980.2	1999.4	2004.2	1997.0	1999.4	1989.8	1999.4	1997.0	2004.2	1999.4	1980.2
42.5°	1918.8	1934.1	1929.3	1920.2	1918.8	1914.9	1918.8	1920.2	1929.3	1934.1	1918.8
45°	1817.0	1824.2	1802.6	1795.4	1790.6	1785.8	1790.6	1795.4	1802.6	1824.2	1817.0
47.5°	1705.6	1696.0	1675.4	1664.3	1650.9	1641.8	1650.9	1664.3	1675.4	1696.0	1705.6
50°	1634.6	1605.8	1589.0	1562.6	1553.0	1555.4	1553.0	1562.6	1589.0	1605.8	1634.6
52.5°	1548.2	1513.6	1487.2	1464.6	1456.9	1455.5	1456.9	1464.6	1487.2	1513.6	1548.2
55°	1423.3	1370.5	1327.3	1315.3	1312.9	1317.7	1312.9	1315.3	1327.3	1370.5	1423.3
57.5°	1270.2	1218.4	1182.8	1173.2	1165.1	1157.4	1165.1	1173.2	1182.8	1218.4	1270.2
60°	1166.5	1118.5	1084.9	1075.3	1053.7	1044.1	1053.7	1075.3	1084.9	1118.5	1166.5
62.5°	1074.3	1016.7	990.8	971.6	955.8	940.4	955.8	971.6	990.8	1016.7	1074.3
65°	940.9	873.7	847.3	830.5	801.7	794.5	801.7	830.5	847.3	873.7	940.9
67.5°	795.0	736.4	703.3	680.7	662.5	662.0	662.5	680.7	703.3	736.4	795.0
70°	700.9	648.1	616.9	590.5	576.1	573.7	576.1	590.5	616.9	648.1	700.9
72.5°	608.7	557.8	530.5	506.0	493.5	491.1	493.5	506.0	530.5	557.8	608.7
75°	477.6	429.6	408.0	391.2	381.6	376.8	381.6	391.2	408.0	429.6	477.6
77.5°	353.3	314.4	303.4	286.1	277.9	277.5	277.9	286.1	303.4	314.4	353.3
80°	278.4	247.2	230.4	220.8	218.4	216.0	218.4	220.8	230.4	247.2	278.4
82.5°	201.6	183.9	172.8	167.1	166.6	162.3	166.6	167.1	172.8	183.9	201.6
85°	108.0	103.2	100.8	98.4	96.0	96.0	96.0	98.4	100.8	103.2	108.0
87.5°	44.2	46.1	46.1	48.0	49.9	48.0	49.9	48.0	46.1	46.1	44.2
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-830-1D-UNV-STD-W-6

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2537.1	2537.1	2537.1	2537.1
2.5°	2569.7	2565.9	2554.3	2554.3
5°	2604.3	2594.7	2568.3	2549.1
7.5°	2612.4	2598.5	2563.9	2525.1
10°	2606.7	2594.7	2556.3	2505.9
12.5°	2595.1	2581.2	2544.7	2479.0
15°	2570.7	2549.1	2515.5	2433.8
17.5°	2531.8	2512.6	2472.7	2369.0
20°	2501.1	2481.9	2436.2	2321.0
22.5°	2464.6	2445.4	2397.8	2255.7
25°	2405.0	2376.2	2335.4	2143.4
27.5°	2338.8	2307.6	2249.5	2020.0
30°	2294.6	2253.8	2174.6	1929.8
32.5°	2246.6	2198.1	2063.3	1828.0
35°	2160.2	2119.4	1927.4	1629.8
37.5°	2066.1	2036.4	1804.5	1406.5
40°	1997.0	1973.0	1687.4	1272.1
42.5°	1912.5	1905.8	1558.7	1172.3
45°	1797.8	1797.8	1483.4	1051.3
47.5°	1680.7	1681.6	1377.7	1019.6
50°	1605.8	1581.8	1300.9	1017.7
52.5°	1529.0	1453.1	1206.8	942.8
55°	1401.7	1274.5	1060.9	856.9
57.5°	1273.6	1111.3	834.3	828.6
60°	1173.7	996.1	638.5	772.9
62.5°	1077.7	865.5	498.3	715.3
65°	936.1	592.9	388.8	595.3
67.5°	801.2	376.4	295.7	430.1
70°	712.9	278.4	211.2	336.0
72.5°	622.6	218.9	178.6	289.9
75°	487.2	156.0	180.0	225.6
77.5°	364.8	118.6	160.8	157.5
80°	278.4	93.6	132.0	124.8
82.5°	207.4	74.4	93.6	92.2
85°	103.2	43.2	48.0	38.4
87.5°	42.2	21.1	17.3	9.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)