

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-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-075D-940-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 90 CRI LEDS
Ballast/Driver: -

Summary

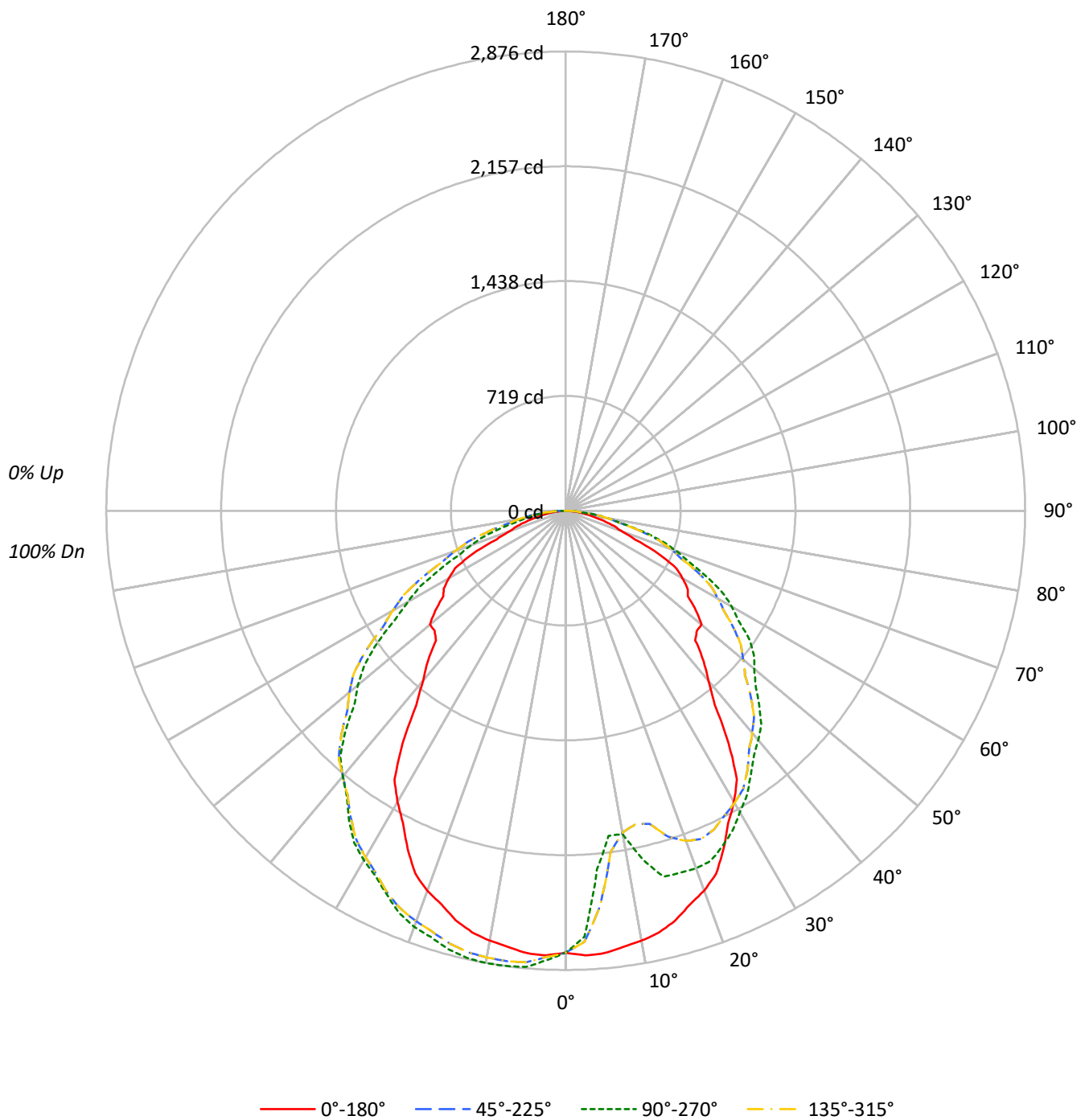
Lumens per Lamp: N/A
Luminaire Lumens: 7173.7 lumens
Efficiency: N/A
Efficacy: 90.3 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

Input Watts (W): 79.4
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
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°	8514	8514	8514	8514
5°	8587	6962	8587	8853
10°	8538	6420	8538	8980
15°	8455	7555	8455	9047
20°	8289	7800	8289	9077
25°	7936	7874	7936	8994
30°	7478	7747	7478	8975
35°	6676	7581	6676	8879
40°	5573	7528	5573	8716
45°	4989	7438	4989	8475
50°	5313	7368	5313	8120
55°	5013	7527	5013	7709
60°	5187	7378	5187	7008
65°	4726	7051	4726	6308
70°	3297	6617	3297	5628
75°	2925	5851	2925	4886
80°	2412	4546	2412	4174
85°	1478	3140	1478	3698

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 8657 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	249.5	3.5
10°-20°	709.2	9.9
20°-30°	1096.0	15.3
30°-40°	1309.4	18.3
40°-50°	1317.9	18.4
50°-60°	1144.2	16.0
60°-70°	810.0	11.3
70°-80°	428.4	6.0
80°-90°	109.0	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°	2054.7	28.6
0°-40°	3364.2	46.9
0°-60°	5826.3	81.2
0°-90°	7173.7	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7173.7	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2768	2768	2768	2768	2768	
5°	2781	2255	2781	2868	2781	264
15°	2656	2373	2656	2842	2656	747
25°	2339	2320	2339	2650	2339	1073
35°	1778	2019	1778	2365	1778	1098
45°	1147	1710	1147	1948	1147	924
55°	935	1404	935	1438	935	860
65°	650	969	650	867	650	618
75°	246	492	246	411	246	260
85°	42	89	42	105	42	60
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°	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3
2.5°	2787.1	2766.2	2757.8	2741.0	2709.6	2692.8	2705.4	2684.5	2692.8	2669.8	2692.8
5°	2781.4	2734.2	2694.9	2629.5	2535.2	2425.2	2399.0	2330.9	2289.0	2255.0	2289.0
7.5°	2755.2	2674.5	2554.6	2354.5	2193.7	2115.1	2095.7	2076.3	2071.1	2053.8	2071.1
10°	2734.2	2624.2	2401.6	2176.4	2063.8	2027.1	2035.0	2042.8	2058.5	2055.9	2058.5
12.5°	2704.9	2536.2	2242.4	2086.3	2011.4	2010.3	2068.5	2172.7	2245.0	2240.3	2245.0
15°	2655.7	2367.6	2092.6	1993.1	1969.5	2090.0	2302.1	2351.9	2370.2	2372.8	2370.2
17.5°	2584.9	2202.6	1996.7	1931.2	2011.4	2273.3	2337.7	2360.2	2376.0	2377.0	2376.0
20°	2532.6	2118.8	1948.5	1904.0	2116.1	2283.8	2323.0	2351.9	2378.0	2383.3	2378.0
22.5°	2461.3	2060.1	1898.2	1885.2	2174.8	2273.3	2308.4	2351.9	2373.9	2372.8	2373.9
25°	2338.8	1987.8	1835.9	1864.7	2181.6	2218.3	2286.4	2315.2	2317.8	2320.4	2317.8
27.5°	2204.1	1924.4	1763.1	1878.3	2139.2	2165.4	2238.7	2253.4	2263.3	2259.1	2263.3
30°	2105.7	1880.4	1712.8	1880.4	2105.7	2121.4	2194.7	2205.2	2192.1	2181.6	2192.1
32.5°	1994.6	1826.0	1664.6	1865.8	2055.4	2077.4	2136.1	2131.9	2118.8	2110.4	2118.8
35°	1778.3	1733.8	1576.6	1817.6	1969.5	1998.3	2032.3	2029.7	2027.1	2019.2	2027.1
37.5°	1534.7	1624.8	1489.7	1742.7	1886.7	1884.6	1935.4	1946.4	1943.8	1933.9	1943.8
40°	1388.1	1534.7	1435.2	1684.0	1828.1	1807.1	1872.6	1885.7	1883.1	1875.2	1883.1
42.5°	1279.1	1415.3	1372.4	1612.8	1756.8	1731.7	1811.8	1824.9	1818.1	1812.3	1818.1
45°	1147.1	1170.7	1275.4	1498.1	1636.9	1634.3	1720.7	1733.8	1718.1	1710.2	1718.1
47.5°	1112.5	943.9	1169.6	1365.0	1518.0	1527.9	1620.6	1632.2	1618.0	1611.2	1618.0
50°	1110.5	832.8	1092.1	1262.4	1440.4	1458.8	1555.7	1560.9	1542.6	1540.0	1542.6
52.5°	1028.7	770.0	1002.0	1172.3	1373.4	1395.9	1484.4	1483.4	1481.8	1485.5	1481.8
55°	935.0	694.0	845.9	1039.7	1270.2	1299.0	1377.6	1380.2	1398.5	1403.8	1398.5
57.5°	904.1	608.1	701.4	925.0	1166.5	1189.0	1262.9	1269.2	1281.7	1281.2	1281.7
60°	843.3	547.4	615.5	853.8	1086.9	1115.7	1181.2	1191.6	1202.1	1199.5	1202.1
62.5°	780.5	505.5	573.6	795.1	1011.5	1042.4	1086.9	1105.7	1109.9	1105.2	1109.9
65°	649.5	450.5	508.1	701.9	895.7	929.7	958.6	971.6	974.3	969.0	974.3
67.5°	469.3	399.7	456.8	609.7	762.7	800.9	817.6	825.5	822.9	832.3	822.9
70°	366.7	364.0	419.0	544.8	680.9	715.0	725.5	733.3	730.7	735.9	730.7
72.5°	316.4	334.7	379.2	477.7	588.7	622.8	629.1	630.7	638.5	633.3	638.5
75°	246.2	285.5	314.3	377.1	460.9	484.5	487.1	489.8	484.5	492.4	484.5
77.5°	171.8	217.4	243.0	279.2	335.8	350.4	349.9	351.5	347.3	346.8	347.3
80°	136.2	165.0	188.6	212.1	254.0	264.5	261.9	259.3	259.3	256.7	259.3
82.5°	100.6	116.8	138.3	155.6	182.8	184.9	188.6	183.9	183.9	187.5	183.9
85°	41.9	55.0	70.7	78.6	89.0	91.7	86.4	94.3	89.0	89.0	89.0
87.5°	10.5	16.8	25.1	29.3	31.4	29.3	29.3	25.1	25.1	25.1	25.1
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°	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3
2.5°	2684.5	2705.4	2692.8	2709.6	2741.0	2757.8	2766.2	2787.1	2787.1	2799.7	2803.9
5°	2330.9	2399.0	2425.2	2535.2	2629.5	2694.9	2734.2	2781.4	2802.3	2831.1	2841.6
7.5°	2076.3	2095.7	2115.1	2193.7	2354.5	2554.6	2674.5	2755.2	2797.6	2835.3	2850.5
10°	2042.8	2035.0	2027.1	2063.8	2176.4	2401.6	2624.2	2734.2	2789.2	2831.1	2844.2
12.5°	2172.7	2068.5	2010.3	2011.4	2086.3	2242.4	2536.2	2704.9	2776.7	2816.5	2831.7
15°	2351.9	2302.1	2090.0	1969.5	1993.1	2092.6	2367.6	2655.7	2744.7	2781.4	2804.9
17.5°	2360.2	2337.7	2273.3	2011.4	1931.2	1996.7	2202.6	2584.9	2698.1	2741.6	2762.5
20°	2351.9	2323.0	2283.8	2116.1	1904.0	1948.5	2118.8	2532.6	2658.3	2708.0	2729.0
22.5°	2351.9	2308.4	2273.3	2174.8	1885.2	1898.2	2060.1	2461.3	2616.4	2668.2	2689.2
25°	2315.2	2286.4	2218.3	2181.6	1864.7	1835.9	1987.8	2338.8	2548.3	2592.8	2624.2
27.5°	2253.4	2238.7	2165.4	2139.2	1878.3	1763.1	1924.4	2204.1	2454.5	2517.9	2551.9
30°	2205.2	2194.7	2121.4	2105.7	1880.4	1712.8	1880.4	2105.7	2372.8	2459.2	2503.8
32.5°	2131.9	2136.1	2077.4	2055.4	1865.8	1664.6	1826.0	1994.6	2251.3	2398.5	2451.4
35°	2029.7	2032.3	1998.3	1969.5	1817.6	1576.6	1733.8	1778.3	2103.1	2312.6	2357.1
37.5°	1946.4	1935.4	1884.6	1886.7	1742.7	1489.7	1624.8	1534.7	1969.0	2222.0	2254.4
40°	1885.7	1872.6	1807.1	1828.1	1684.0	1435.2	1534.7	1388.1	1841.2	2152.8	2179.0
42.5°	1824.9	1811.8	1731.7	1756.8	1612.8	1372.4	1415.3	1279.1	1700.8	2079.5	2086.8
45°	1733.8	1720.7	1634.3	1636.9	1498.1	1275.4	1170.7	1147.1	1618.5	1961.6	1961.6
47.5°	1632.2	1620.6	1527.9	1518.0	1365.0	1169.6	943.9	1112.5	1503.3	1834.9	1833.8
50°	1560.9	1555.7	1458.8	1440.4	1262.4	1092.1	832.8	1110.5	1419.5	1725.9	1752.1
52.5°	1483.4	1484.4	1395.9	1373.4	1172.3	1002.0	770.0	1028.7	1316.8	1585.5	1668.3
55°	1380.2	1377.6	1299.0	1270.2	1039.7	845.9	694.0	935.0	1157.6	1390.7	1529.5
57.5°	1269.2	1262.9	1189.0	1166.5	925.0	701.4	608.1	904.1	910.4	1212.6	1389.6
60°	1191.6	1181.2	1115.7	1086.9	853.8	615.5	547.4	843.3	696.7	1086.9	1280.7
62.5°	1105.7	1086.9	1042.4	1011.5	795.1	573.6	505.5	780.5	543.7	944.4	1175.9
65°	971.6	958.6	929.7	895.7	701.9	508.1	450.5	649.5	424.3	646.9	1021.4
67.5°	825.5	817.6	800.9	762.7	609.7	456.8	399.7	469.3	322.7	410.7	874.2
70°	733.3	725.5	715.0	680.9	544.8	419.0	364.0	366.7	230.5	303.8	777.8
72.5°	630.7	629.1	622.8	588.7	477.7	379.2	334.7	316.4	194.9	238.9	679.4
75°	489.8	487.1	484.5	460.9	377.1	314.3	285.5	246.2	196.4	170.2	531.7
77.5°	351.5	349.9	350.4	335.8	279.2	243.0	217.4	171.8	175.5	129.4	398.1
80°	259.3	261.9	264.5	254.0	212.1	188.6	165.0	136.2	144.0	102.1	303.8
82.5°	183.9	188.6	184.9	182.8	155.6	138.3	116.8	100.6	102.1	81.2	226.3
85°	94.3	86.4	91.7	89.0	78.6	70.7	55.0	41.9	52.4	47.1	112.6
87.5°	25.1	29.3	29.3	31.4	29.3	25.1	16.8	10.5	18.9	23.0	46.1
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°	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3	2768.3
2.5°	2797.6	2797.6	2816.5	2820.7	2824.8	2818.6	2824.8	2820.7	2816.5	2797.6	2797.6
5°	2839.0	2839.0	2865.2	2873.0	2873.0	2867.8	2873.0	2873.0	2865.2	2839.0	2839.0
7.5°	2842.7	2846.8	2873.0	2878.8	2883.5	2875.7	2883.5	2878.8	2873.0	2846.8	2842.7
10°	2836.4	2846.8	2873.0	2880.9	2883.5	2875.7	2883.5	2880.9	2873.0	2846.8	2836.4
12.5°	2828.0	2836.4	2862.6	2868.3	2873.0	2867.3	2873.0	2868.3	2862.6	2836.4	2828.0
15°	2799.7	2810.2	2839.0	2844.2	2849.5	2841.6	2849.5	2844.2	2839.0	2810.2	2799.7
17.5°	2760.4	2773.5	2799.7	2808.1	2810.7	2800.8	2810.7	2808.1	2799.7	2773.5	2760.4
20°	2729.0	2742.1	2768.3	2778.8	2781.4	2773.5	2781.4	2778.8	2768.3	2742.1	2729.0
22.5°	2689.2	2710.7	2734.8	2738.9	2735.3	2727.4	2735.3	2738.9	2734.8	2710.7	2689.2
25°	2632.1	2650.4	2658.3	2658.3	2658.3	2650.4	2658.3	2658.3	2658.3	2650.4	2632.1
27.5°	2559.3	2568.7	2573.4	2577.6	2582.9	2577.6	2582.9	2577.6	2573.4	2568.7	2559.3
30°	2509.0	2503.8	2516.9	2527.3	2532.6	2527.3	2532.6	2527.3	2516.9	2503.8	2509.0
32.5°	2439.9	2443.0	2462.4	2468.7	2469.7	2464.5	2469.7	2468.7	2462.4	2443.0	2439.9
35°	2338.8	2351.9	2365.0	2370.2	2372.8	2365.0	2372.8	2370.2	2365.0	2351.9	2338.8
37.5°	2231.9	2255.0	2264.4	2258.6	2259.1	2250.8	2259.1	2258.6	2264.4	2255.0	2231.9
40°	2160.7	2181.6	2186.9	2179.0	2181.6	2171.1	2181.6	2179.0	2186.9	2181.6	2160.7
42.5°	2093.6	2110.4	2105.1	2095.2	2093.6	2089.4	2093.6	2095.2	2105.1	2110.4	2093.6
45°	1982.6	1990.4	1966.9	1959.0	1953.8	1948.5	1953.8	1959.0	1966.9	1990.4	1982.6
47.5°	1861.1	1850.6	1828.1	1816.0	1801.3	1791.4	1801.3	1816.0	1828.1	1850.6	1861.1
50°	1783.5	1752.1	1733.8	1705.0	1694.5	1697.1	1694.5	1705.0	1733.8	1752.1	1783.5
52.5°	1689.3	1651.5	1622.7	1598.1	1589.7	1588.2	1589.7	1598.1	1622.7	1651.5	1689.3
55°	1553.1	1495.4	1448.3	1435.2	1432.6	1437.8	1432.6	1435.2	1448.3	1495.4	1553.1
57.5°	1386.0	1329.4	1290.6	1280.2	1271.3	1262.9	1271.3	1280.2	1290.6	1329.4	1386.0
60°	1272.8	1220.5	1183.8	1173.3	1149.7	1139.3	1149.7	1173.3	1183.8	1220.5	1272.8
62.5°	1172.3	1109.4	1081.1	1060.2	1042.9	1026.1	1042.9	1060.2	1081.1	1109.4	1172.3
65°	1026.6	953.3	924.5	906.2	874.7	866.9	874.7	906.2	924.5	953.3	1026.6
67.5°	867.4	803.5	767.4	742.7	722.8	722.3	722.8	742.7	767.4	803.5	867.4
70°	764.7	707.1	673.1	644.3	628.6	625.9	628.6	644.3	673.1	707.1	764.7
72.5°	664.2	608.7	578.8	552.1	538.5	535.8	538.5	552.1	578.8	608.7	664.2
75°	521.2	468.8	445.2	426.9	416.4	411.2	416.4	426.9	445.2	468.8	521.2
77.5°	385.5	343.1	331.0	312.2	303.3	302.8	303.3	312.2	331.0	343.1	385.5
80°	303.8	269.8	251.4	240.9	238.3	235.7	238.3	240.9	251.4	269.8	303.8
82.5°	220.0	200.6	188.6	182.3	181.8	177.0	181.8	182.3	188.6	200.6	220.0
85°	117.9	112.6	110.0	107.4	104.8	104.8	104.8	107.4	110.0	112.6	117.9
87.5°	48.2	50.3	50.3	52.4	54.5	52.4	54.5	52.4	50.3	50.3	48.2
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-075D-940-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2768.3	2768.3	2768.3	2768.3
2.5°	2803.9	2799.7	2787.1	2787.1
5°	2841.6	2831.1	2802.3	2781.4
7.5°	2850.5	2835.3	2797.6	2755.2
10°	2844.2	2831.1	2789.2	2734.2
12.5°	2831.7	2816.5	2776.7	2704.9
15°	2804.9	2781.4	2744.7	2655.7
17.5°	2762.5	2741.6	2698.1	2584.9
20°	2729.0	2708.0	2658.3	2532.6
22.5°	2689.2	2668.2	2616.4	2461.3
25°	2624.2	2592.8	2548.3	2338.8
27.5°	2551.9	2517.9	2454.5	2204.1
30°	2503.8	2459.2	2372.8	2105.7
32.5°	2451.4	2398.5	2251.3	1994.6
35°	2357.1	2312.6	2103.1	1778.3
37.5°	2254.4	2222.0	1969.0	1534.7
40°	2179.0	2152.8	1841.2	1388.1
42.5°	2086.8	2079.5	1700.8	1279.1
45°	1961.6	1961.6	1618.5	1147.1
47.5°	1833.8	1834.9	1503.3	1112.5
50°	1752.1	1725.9	1419.5	1110.5
52.5°	1668.3	1585.5	1316.8	1028.7
55°	1529.5	1390.7	1157.6	935.0
57.5°	1389.6	1212.6	910.4	904.1
60°	1280.7	1086.9	696.7	843.3
62.5°	1175.9	944.4	543.7	780.5
65°	1021.4	646.9	424.3	649.5
67.5°	874.2	410.7	322.7	469.3
70°	777.8	303.8	230.5	366.7
72.5°	679.4	238.9	194.9	316.4
75°	531.7	170.2	196.4	246.2
77.5°	398.1	129.4	175.5	171.8
80°	303.8	102.1	144.0	136.2
82.5°	226.3	81.2	102.1	100.6
85°	112.6	47.1	52.4	41.9
87.5°	46.1	23.0	18.9	10.5
90°	0.0	0.0	0.0	0.0

(END OF REPORT)