

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-835-1D-UNV-STD-W-8

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-835-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3500K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

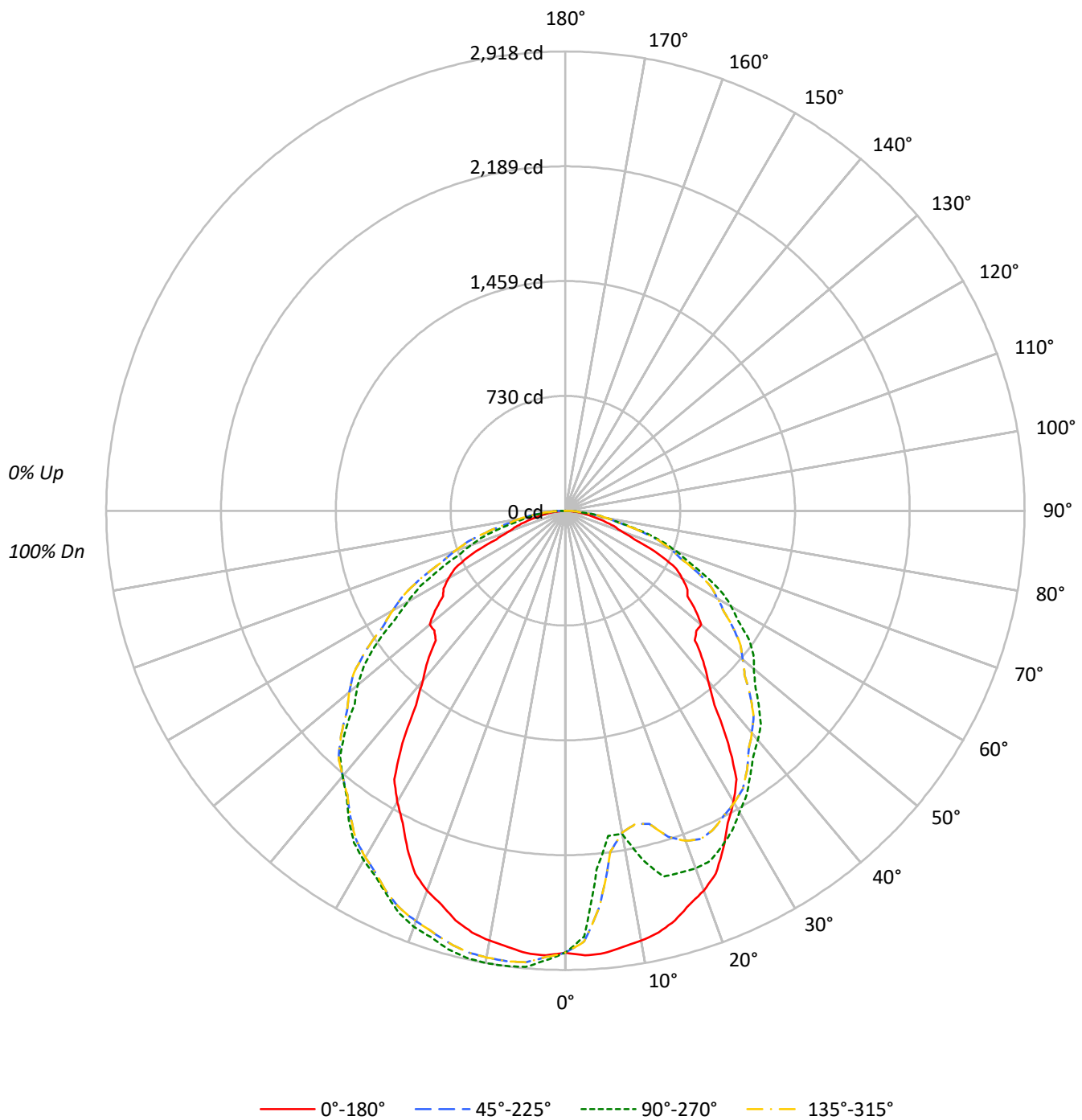
Lumens per Lamp: N/A
Luminaire Lumens: 7278.0 lumens
Efficiency: N/A
Efficacy: 101.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

Input Watts (W): 71.7
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°	12956	12956	12956	12956
5°	13067	10594	13067	13473
10°	12994	9770	12994	13666
15°	12868	11497	12868	13768
20°	12614	11870	12614	13814
25°	12078	11983	12078	13687
30°	11380	11790	11380	13658
35°	10160	11537	10160	13512
40°	8481	11457	8481	13265
45°	7593	11320	7593	12897
50°	8085	11213	8085	12357
55°	7629	11454	7629	11732
60°	7894	11227	7894	10664
65°	7193	10731	7193	9600
70°	5017	10070	5017	8565
75°	4452	8903	4452	7436
80°	3671	6918	3671	6352
85°	2249	4780	2249	5626

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 13174 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	253.2	3.5
10°-20°	719.5	9.9
20°-30°	1111.9	15.3
30°-40°	1328.5	18.3
40°-50°	1337.1	18.4
50°-60°	1160.8	16.0
60°-70°	821.7	11.3
70°-80°	434.6	6.0
80°-90°	110.6	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°	2084.6	28.6
0°-40°	3413.1	46.9
0°-60°	5911.0	81.2
0°-90°	7278.0	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7278.0	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2808	2808	2808	2808	2808	
5°	2822	2288	2822	2910	2822	267
15°	2694	2407	2694	2883	2694	757
25°	2373	2354	2373	2689	2373	1088
35°	1804	2049	1804	2399	1804	1114
45°	1164	1735	1164	1977	1164	937
55°	949	1424	949	1459	949	873
65°	659	983	659	880	659	627
75°	250	500	250	417	250	264
85°	42	90	42	106	42	61
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°	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5
2.5°	2827.7	2806.4	2797.9	2780.9	2749.0	2732.0	2744.8	2723.5	2732.0	2708.6	2732.0
5°	2821.8	2774.0	2734.1	2667.7	2572.1	2460.5	2433.9	2364.8	2322.3	2287.7	2322.3
7.5°	2795.3	2713.4	2591.7	2388.7	2225.6	2145.9	2126.2	2106.5	2101.2	2083.7	2101.2
10°	2774.0	2662.4	2436.5	2208.0	2093.8	2056.6	2064.6	2072.5	2088.5	2085.8	2088.5
12.5°	2744.2	2573.1	2275.0	2116.6	2040.6	2039.6	2098.6	2204.3	2277.7	2272.9	2277.7
15°	2694.3	2402.0	2123.0	2022.0	1998.1	2120.4	2335.6	2386.1	2404.7	2407.3	2404.7
17.5°	2622.5	2234.6	2025.8	1959.3	2040.6	2306.3	2371.7	2394.6	2410.5	2411.6	2410.5
20°	2569.4	2149.6	1976.9	1931.7	2146.9	2317.0	2356.8	2386.1	2412.6	2417.9	2412.6
22.5°	2497.1	2090.1	1925.9	1912.6	2206.4	2306.3	2342.0	2386.1	2408.4	2407.3	2408.4
25°	2372.8	2016.7	1862.6	1891.8	2213.4	2250.5	2319.6	2348.9	2351.5	2354.2	2351.5
27.5°	2236.2	1952.4	1788.7	1905.7	2170.3	2196.9	2271.3	2286.2	2296.3	2292.0	2296.3
30°	2136.3	1907.8	1737.7	1907.8	2136.3	2152.2	2226.6	2237.3	2224.0	2213.4	2224.0
32.5°	2023.6	1852.5	1688.8	1892.9	2085.3	2107.6	2167.1	2162.9	2149.6	2141.1	2149.6
35°	1804.2	1759.0	1599.6	1844.0	1998.1	2027.4	2061.9	2059.2	2056.6	2048.6	2056.6
37.5°	1557.1	1648.5	1511.3	1768.0	1914.2	1912.0	1963.6	1974.7	1972.1	1962.0	1972.1
40°	1408.3	1557.1	1456.1	1708.5	1854.6	1833.4	1899.8	1913.1	1910.4	1902.5	1910.4
42.5°	1297.7	1435.9	1392.3	1636.2	1782.4	1756.9	1838.2	1851.5	1844.5	1838.7	1844.5
45°	1163.8	1187.7	1294.0	1519.9	1660.7	1658.0	1745.7	1759.0	1743.0	1735.1	1743.0
47.5°	1128.7	957.6	1186.7	1384.9	1540.0	1550.1	1644.2	1655.9	1641.5	1634.6	1641.5
50°	1126.6	845.0	1108.0	1280.7	1461.4	1480.0	1578.3	1583.6	1565.0	1562.4	1565.0
52.5°	1043.7	781.2	1016.6	1189.3	1393.4	1416.2	1506.0	1505.0	1503.4	1507.1	1503.4
55°	948.6	704.1	858.2	1054.9	1288.7	1317.9	1397.6	1400.3	1418.9	1424.2	1418.9
57.5°	917.2	617.0	711.6	938.5	1183.5	1206.3	1281.2	1287.6	1300.4	1299.8	1300.4
60°	855.6	555.3	624.4	866.2	1102.7	1131.9	1198.3	1209.0	1219.6	1216.9	1219.6
62.5°	791.8	512.8	581.9	806.7	1026.2	1057.5	1102.7	1121.8	1126.1	1121.3	1126.1
65°	659.0	457.0	515.5	712.1	908.7	943.3	972.5	985.8	988.4	983.1	988.4
67.5°	476.1	405.5	463.4	618.6	773.7	812.5	829.5	837.5	834.9	844.4	834.9
70°	372.0	369.3	425.1	552.7	690.8	725.4	736.0	744.0	741.3	746.6	741.3
72.5°	321.0	339.6	384.7	484.7	597.3	631.9	638.2	639.8	647.8	642.5	647.8
75°	249.8	289.6	318.8	382.6	467.6	491.6	494.2	496.9	491.6	499.5	491.6
77.5°	174.3	220.5	246.6	283.2	340.6	355.5	355.0	356.6	352.3	351.8	352.3
80°	138.2	167.4	191.3	215.2	257.7	268.4	265.7	263.1	263.1	260.4	263.1
82.5°	102.0	118.5	140.3	157.8	185.5	187.6	191.3	186.5	186.5	190.2	186.5
85°	42.5	55.8	71.7	79.7	90.3	93.0	87.7	95.7	90.3	90.3	90.3
87.5°	10.6	17.0	25.5	29.8	31.9	29.8	29.8	25.5	25.5	25.5	25.5
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°	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5
2.5°	2723.5	2744.8	2732.0	2749.0	2780.9	2797.9	2806.4	2827.7	2827.7	2840.4	2844.7
5°	2364.8	2433.9	2460.5	2572.1	2667.7	2734.1	2774.0	2821.8	2843.1	2872.3	2882.9
7.5°	2106.5	2126.2	2145.9	2225.6	2388.7	2591.7	2713.4	2795.3	2838.3	2876.6	2892.0
10°	2072.5	2064.6	2056.6	2093.8	2208.0	2436.5	2662.4	2774.0	2829.8	2872.3	2885.6
12.5°	2204.3	2098.6	2039.6	2040.6	2116.6	2275.0	2573.1	2744.2	2817.0	2857.4	2872.8
15°	2386.1	2335.6	2120.4	1998.1	2022.0	2123.0	2402.0	2694.3	2784.6	2821.8	2845.7
17.5°	2394.6	2371.7	2306.3	2040.6	1959.3	2025.8	2234.6	2622.5	2737.3	2781.4	2802.7
20°	2386.1	2356.8	2317.0	2146.9	1931.7	1976.9	2149.6	2569.4	2696.9	2747.4	2768.7
22.5°	2386.1	2342.0	2306.3	2206.4	1912.6	1925.9	2090.1	2497.1	2654.4	2707.0	2728.3
25°	2348.9	2319.6	2250.5	2213.4	1891.8	1862.6	2016.7	2372.8	2585.3	2630.5	2662.4
27.5°	2286.2	2271.3	2196.9	2170.3	1905.7	1788.7	1952.4	2236.2	2490.2	2554.5	2589.1
30°	2237.3	2226.6	2152.2	2136.3	1907.8	1737.7	1907.8	2136.3	2407.3	2495.0	2540.2
32.5°	2162.9	2167.1	2107.6	2085.3	1892.9	1688.8	1852.5	2023.6	2284.0	2433.4	2487.0
35°	2059.2	2061.9	2027.4	1998.1	1844.0	1599.6	1759.0	1804.2	2133.6	2346.2	2391.4
37.5°	1974.7	1963.6	1912.0	1914.2	1768.0	1511.3	1648.5	1557.1	1997.6	2254.3	2287.2
40°	1913.1	1899.8	1833.4	1854.6	1708.5	1456.1	1557.1	1408.3	1867.9	2184.1	2210.7
42.5°	1851.5	1838.2	1756.9	1782.4	1636.2	1392.3	1435.9	1297.7	1725.5	2109.7	2117.2
45°	1759.0	1745.7	1658.0	1660.7	1519.9	1294.0	1187.7	1163.8	1642.1	1990.2	1990.2
47.5°	1655.9	1644.2	1550.1	1540.0	1384.9	1186.7	957.6	1128.7	1525.2	1861.6	1860.5
50°	1583.6	1578.3	1480.0	1461.4	1280.7	1108.0	845.0	1126.6	1440.1	1751.0	1777.6
52.5°	1505.0	1506.0	1416.2	1393.4	1189.3	1016.6	781.2	1043.7	1336.0	1608.6	1692.6
55°	1400.3	1397.6	1317.9	1288.7	1054.9	858.2	704.1	948.6	1174.4	1410.9	1551.7
57.5°	1287.6	1281.2	1206.3	1183.5	938.5	711.6	617.0	917.2	923.6	1230.2	1409.8
60°	1209.0	1198.3	1131.9	1102.7	866.2	624.4	555.3	855.6	706.8	1102.7	1299.3
62.5°	1121.8	1102.7	1057.5	1026.2	806.7	581.9	512.8	791.8	551.6	958.1	1193.0
65°	985.8	972.5	943.3	908.7	712.1	515.5	457.0	659.0	430.4	656.3	1036.3
67.5°	837.5	829.5	812.5	773.7	618.6	463.4	405.5	476.1	327.4	416.6	886.9
70°	744.0	736.0	725.4	690.8	552.7	425.1	369.3	372.0	233.8	308.2	789.2
72.5°	639.8	638.2	631.9	597.3	484.7	384.7	339.6	321.0	197.7	242.3	689.2
75°	496.9	494.2	491.6	467.6	382.6	318.8	289.6	249.8	199.3	172.7	539.4
77.5°	356.6	355.0	355.5	340.6	283.2	246.6	220.5	174.3	178.0	131.3	403.9
80°	263.1	265.7	268.4	257.7	215.2	191.3	167.4	138.2	146.1	103.6	308.2
82.5°	186.5	191.3	187.6	185.5	157.8	140.3	118.5	102.0	103.6	82.4	229.6
85°	95.7	87.7	93.0	90.3	79.7	71.7	55.8	42.5	53.1	47.8	114.3
87.5°	25.5	29.8	29.8	31.9	29.8	25.5	17.0	10.6	19.1	23.4	46.8
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°	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5	2808.5
2.5°	2838.3	2838.3	2857.4	2861.7	2865.9	2859.6	2865.9	2861.7	2857.4	2838.3	2838.3
5°	2880.3	2880.3	2906.8	2914.8	2914.8	2909.5	2914.8	2914.8	2906.8	2880.3	2880.3
7.5°	2884.0	2888.2	2914.8	2920.7	2925.4	2917.5	2925.4	2920.7	2914.8	2888.2	2884.0
10°	2877.6	2888.2	2914.8	2922.8	2925.4	2917.5	2925.4	2922.8	2914.8	2888.2	2877.6
12.5°	2869.1	2877.6	2904.2	2910.0	2914.8	2909.0	2914.8	2910.0	2904.2	2877.6	2869.1
15°	2840.4	2851.1	2880.3	2885.6	2890.9	2882.9	2890.9	2885.6	2880.3	2851.1	2840.4
17.5°	2800.6	2813.9	2840.4	2848.9	2851.6	2841.5	2851.6	2848.9	2840.4	2813.9	2800.6
20°	2768.7	2782.0	2808.5	2819.2	2821.8	2813.9	2821.8	2819.2	2808.5	2782.0	2768.7
22.5°	2728.3	2750.1	2774.5	2778.8	2775.1	2767.1	2775.1	2778.8	2774.5	2750.1	2728.3
25°	2670.4	2689.0	2696.9	2696.9	2696.9	2689.0	2696.9	2696.9	2696.9	2689.0	2670.4
27.5°	2596.5	2606.1	2610.9	2615.1	2620.4	2615.1	2620.4	2615.1	2610.9	2606.1	2596.5
30°	2545.5	2540.2	2553.5	2564.1	2569.4	2564.1	2569.4	2564.1	2553.5	2540.2	2545.5
32.5°	2475.3	2478.5	2498.2	2504.6	2505.6	2500.3	2505.6	2504.6	2498.2	2478.5	2475.3
35°	2372.8	2386.1	2399.3	2404.7	2407.3	2399.3	2407.3	2404.7	2399.3	2386.1	2372.8
37.5°	2264.4	2287.7	2297.3	2291.5	2292.0	2283.5	2292.0	2291.5	2297.3	2287.7	2264.4
40°	2192.1	2213.4	2218.7	2210.7	2213.4	2202.7	2213.4	2210.7	2218.7	2213.4	2192.1
42.5°	2124.1	2141.1	2135.8	2125.7	2124.1	2119.8	2124.1	2125.7	2135.8	2141.1	2124.1
45°	2011.4	2019.4	1995.5	1987.5	1982.2	1976.9	1982.2	1987.5	1995.5	2019.4	2011.4
47.5°	1888.1	1877.5	1854.6	1842.4	1827.5	1817.4	1827.5	1842.4	1854.6	1877.5	1888.1
50°	1809.5	1777.6	1759.0	1729.8	1719.1	1721.8	1719.1	1729.8	1759.0	1777.6	1809.5
52.5°	1713.8	1675.6	1646.3	1621.4	1612.8	1611.3	1612.8	1621.4	1646.3	1675.6	1713.8
55°	1575.7	1517.2	1469.4	1456.1	1453.4	1458.7	1453.4	1456.1	1469.4	1517.2	1575.7
57.5°	1406.1	1348.7	1309.4	1298.8	1289.7	1281.2	1289.7	1298.8	1309.4	1348.7	1406.1
60°	1291.3	1238.2	1201.0	1190.4	1166.5	1155.8	1166.5	1190.4	1201.0	1238.2	1291.3
62.5°	1189.3	1125.5	1096.8	1075.6	1058.1	1041.0	1058.1	1075.6	1096.8	1125.5	1189.3
65°	1041.6	967.2	938.0	919.4	887.5	879.5	887.5	919.4	938.0	967.2	1041.6
67.5°	880.0	815.2	778.5	753.5	733.4	732.8	733.4	753.5	778.5	815.2	880.0
70°	775.9	717.4	682.9	653.6	637.7	635.0	637.7	653.6	682.9	717.4	775.9
72.5°	673.8	617.5	587.2	560.1	546.3	543.6	546.3	560.1	587.2	617.5	673.8
75°	528.8	475.6	451.7	433.1	422.5	417.2	422.5	433.1	451.7	475.6	528.8
77.5°	391.1	348.1	335.9	316.7	307.7	307.2	307.7	316.7	335.9	348.1	391.1
80°	308.2	273.7	255.1	244.5	241.8	239.1	241.8	244.5	255.1	273.7	308.2
82.5°	223.2	203.5	191.3	184.9	184.4	179.6	184.4	184.9	191.3	203.5	223.2
85°	119.6	114.3	111.6	108.9	106.3	106.3	106.3	108.9	111.6	114.3	119.6
87.5°	48.9	51.0	51.0	53.1	55.3	53.1	55.3	53.1	51.0	51.0	48.9
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-835-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2808.5	2808.5	2808.5	2808.5
2.5°	2844.7	2840.4	2827.7	2827.7
5°	2882.9	2872.3	2843.1	2821.8
7.5°	2892.0	2876.6	2838.3	2795.3
10°	2885.6	2872.3	2829.8	2774.0
12.5°	2872.8	2857.4	2817.0	2744.2
15°	2845.7	2821.8	2784.6	2694.3
17.5°	2802.7	2781.4	2737.3	2622.5
20°	2768.7	2747.4	2696.9	2569.4
22.5°	2728.3	2707.0	2654.4	2497.1
25°	2662.4	2630.5	2585.3	2372.8
27.5°	2589.1	2554.5	2490.2	2236.2
30°	2540.2	2495.0	2407.3	2136.3
32.5°	2487.0	2433.4	2284.0	2023.6
35°	2391.4	2346.2	2133.6	1804.2
37.5°	2287.2	2254.3	1997.6	1557.1
40°	2210.7	2184.1	1867.9	1408.3
42.5°	2117.2	2109.7	1725.5	1297.7
45°	1990.2	1990.2	1642.1	1163.8
47.5°	1860.5	1861.6	1525.2	1128.7
50°	1777.6	1751.0	1440.1	1126.6
52.5°	1692.6	1608.6	1336.0	1043.7
55°	1551.7	1410.9	1174.4	948.6
57.5°	1409.8	1230.2	923.6	917.2
60°	1299.3	1102.7	706.8	855.6
62.5°	1193.0	958.1	551.6	791.8
65°	1036.3	656.3	430.4	659.0
67.5°	886.9	416.6	327.4	476.1
70°	789.2	308.2	233.8	372.0
72.5°	689.2	242.3	197.7	321.0
75°	539.4	172.7	199.3	249.8
77.5°	403.9	131.3	178.0	174.3
80°	308.2	103.6	146.1	138.2
82.5°	229.6	82.4	103.6	102.0
85°	114.3	47.8	53.1	42.5
87.5°	46.8	23.4	19.1	10.6
90°	0.0	0.0	0.0	0.0

(END OF REPORT)