

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-840-1D-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-840-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 1000 LUMENS PER FOOT
DIRECT ONLY
Light Source: 4000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

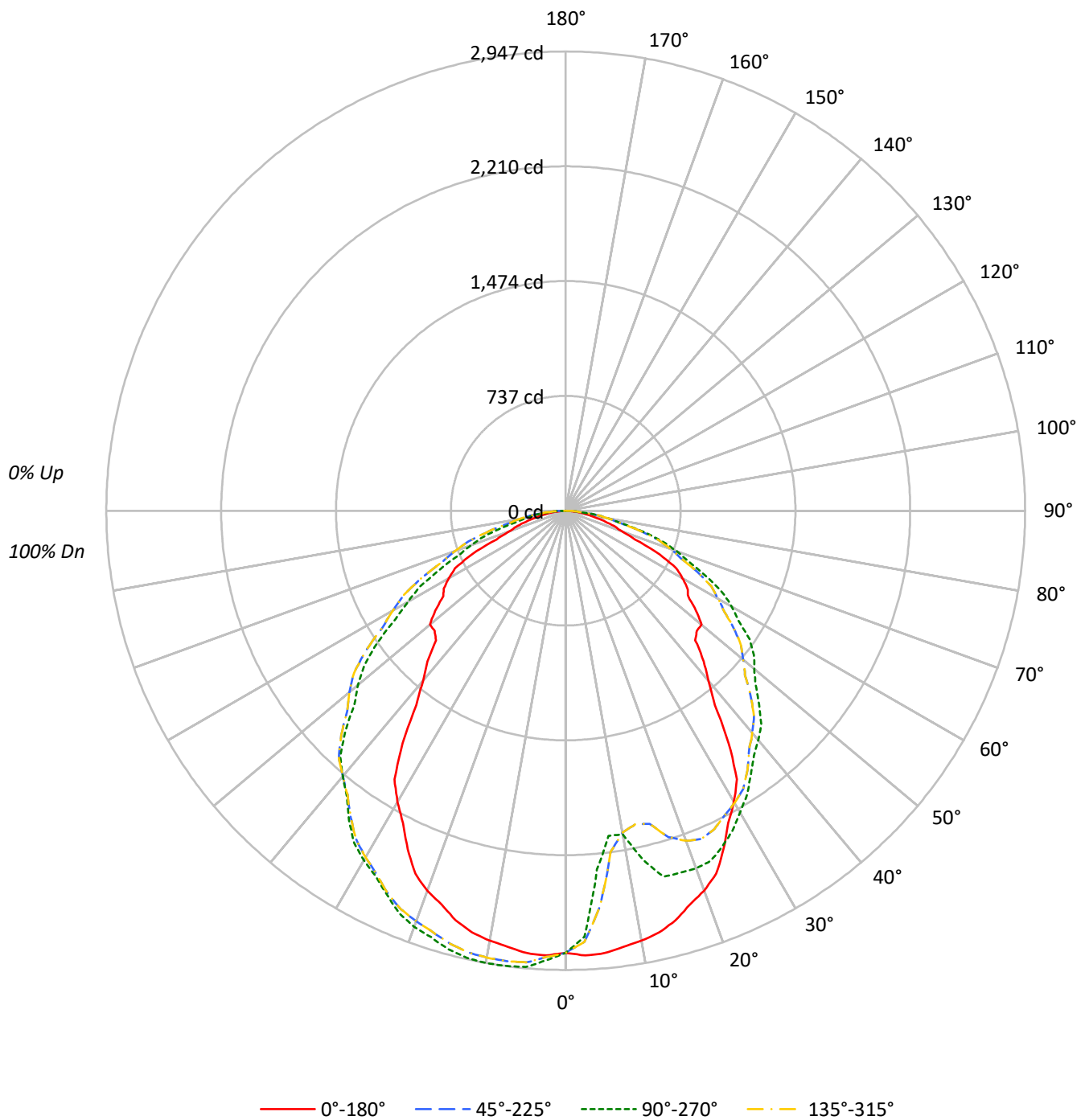
Lumens per Lamp: N/A
Luminaire Lumens: 7351.3 lumens
Efficiency: N/A
Efficacy: 102.5 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 8' x H: 0')
CIE Type: Direct

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				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°	13086	13086	13086	13086
5°	13198	10701	13198	13609
10°	13125	9869	13125	13804
15°	12997	11612	12997	13907
20°	12741	11990	12741	13953
25°	12199	12103	12199	13824
30°	11494	11908	11494	13796
35°	10262	11653	10262	13648
40°	8566	11572	8566	13398
45°	7669	11433	7669	13027
50°	8166	11326	8166	12481
55°	7706	11569	7706	11850
60°	7973	11341	7973	10772
65°	7265	10839	7265	9696
70°	5067	10173	5067	8651
75°	4497	8994	4497	7511
80°	3709	6987	3709	6416
85°	2271	4827	2271	5685

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 13307 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	255.7	3.5
10°-20°	726.8	9.9
20°-30°	1123.1	15.3
30°-40°	1341.9	18.3
40°-50°	1350.5	18.4
50°-60°	1172.5	16.0
60°-70°	830.0	11.3
70°-80°	439.0	6.0
80°-90°	111.7	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°	2105.6	28.6
0°-40°	3447.5	46.9
0°-60°	5970.5	81.2
0°-90°	7351.3	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7351.3	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2837	2837	2837	2837	2837	
5°	2850	2311	2850	2939	2850	270
15°	2721	2432	2721	2912	2721	765
25°	2397	2378	2397	2716	2397	1099
35°	1822	2069	1822	2424	1822	1125
45°	1176	1752	1176	1997	1176	947
55°	958	1438	958	1473	958	881
65°	666	993	666	888	666	633
75°	252	505	252	421	252	266
85°	43	91	43	107	43	62
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°	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8
2.5°	2856.1	2834.7	2826.1	2808.9	2776.7	2759.5	2772.4	2750.9	2759.5	2735.9	2759.5
5°	2850.2	2801.9	2761.7	2694.6	2597.9	2485.2	2458.4	2388.6	2345.7	2310.8	2345.7
7.5°	2823.4	2740.7	2617.8	2412.8	2248.0	2167.5	2147.6	2127.7	2122.4	2104.7	2122.4
10°	2801.9	2689.2	2461.1	2230.3	2114.9	2077.3	2085.3	2093.4	2109.5	2106.8	2109.5
12.5°	2771.8	2599.0	2297.9	2137.9	2061.2	2060.1	2119.7	2226.5	2300.6	2295.7	2300.6
15°	2721.4	2426.2	2144.4	2042.4	2018.2	2141.7	2359.1	2410.1	2428.9	2431.5	2428.9
17.5°	2648.9	2257.1	2046.1	1979.0	2061.2	2329.6	2395.6	2418.7	2434.8	2435.8	2434.8
20°	2595.3	2171.2	1996.8	1951.1	2168.5	2340.3	2380.5	2410.1	2436.9	2442.3	2436.9
22.5°	2522.3	2111.1	1945.2	1931.8	2228.6	2329.6	2365.5	2410.1	2432.6	2431.5	2432.6
25°	2396.7	2037.0	1881.4	1910.9	2235.6	2273.2	2343.0	2372.5	2375.2	2377.9	2375.2
27.5°	2258.7	1972.1	1806.7	1924.8	2192.1	2219.0	2294.1	2309.2	2319.4	2315.1	2319.4
30°	2157.8	1927.0	1755.2	1927.0	2157.8	2173.9	2249.0	2259.8	2246.4	2235.6	2246.4
32.5°	2044.0	1871.2	1705.8	1912.0	2106.3	2128.8	2188.9	2184.6	2171.2	2162.6	2171.2
35°	1822.3	1776.7	1615.7	1862.6	2018.2	2047.8	2082.6	2080.0	2077.3	2069.2	2077.3
37.5°	1572.7	1665.0	1526.6	1785.8	1933.4	1931.3	1983.3	1994.6	1991.9	1981.7	1991.9
40°	1422.4	1572.7	1470.7	1725.7	1873.3	1851.8	1918.9	1932.4	1929.7	1921.6	1929.7
42.5°	1310.8	1450.3	1406.3	1652.7	1800.3	1774.5	1856.7	1870.1	1863.1	1857.2	1863.1
45°	1175.5	1199.7	1307.0	1535.1	1677.4	1674.7	1763.3	1776.7	1760.6	1752.5	1760.6
47.5°	1140.1	967.2	1198.6	1398.8	1555.5	1565.7	1660.7	1672.6	1658.1	1651.1	1658.1
50°	1137.9	853.5	1119.2	1293.6	1476.1	1494.9	1594.2	1599.6	1580.8	1578.1	1580.8
52.5°	1054.2	789.0	1026.8	1201.3	1407.4	1430.5	1521.2	1520.1	1518.5	1522.3	1518.5
55°	958.1	711.2	866.9	1065.5	1301.7	1331.2	1411.7	1414.4	1433.2	1438.5	1433.2
57.5°	926.5	623.2	718.7	947.9	1195.4	1218.5	1294.1	1300.6	1313.5	1312.9	1313.5
60°	864.2	560.9	630.7	874.9	1113.8	1143.3	1210.4	1221.1	1231.9	1229.2	1231.9
62.5°	799.8	518.0	587.8	814.8	1036.5	1068.2	1113.8	1133.1	1137.4	1132.6	1137.4
65°	665.6	461.6	520.7	719.3	917.9	952.8	982.3	995.7	998.4	993.0	998.4
67.5°	480.9	409.6	468.1	624.8	781.5	820.7	837.9	845.9	843.3	852.9	843.3
70°	375.7	373.1	429.4	558.2	697.8	732.7	743.4	751.5	748.8	754.2	748.8
72.5°	324.2	343.0	388.6	489.5	603.3	638.2	644.7	646.3	654.3	648.9	654.3
75°	252.3	292.5	322.1	386.5	472.4	496.5	499.2	501.9	496.5	504.6	496.5
77.5°	176.1	222.8	249.1	286.1	344.1	359.1	358.6	360.2	355.9	355.3	355.9
80°	139.6	169.1	193.2	217.4	260.3	271.1	268.4	265.7	265.7	263.0	265.7
82.5°	103.1	119.7	141.7	159.4	187.3	189.5	193.2	188.4	188.4	192.2	188.4
85°	42.9	56.4	72.5	80.5	91.2	93.9	88.6	96.6	91.2	91.2	91.2
87.5°	10.7	17.2	25.8	30.1	32.2	30.1	30.1	25.8	25.8	25.8	25.8
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8
2.5°	2750.9	2772.4	2759.5	2776.7	2808.9	2826.1	2834.7	2856.1	2856.1	2869.0	2873.3
5°	2388.6	2458.4	2485.2	2597.9	2694.6	2761.7	2801.9	2850.2	2871.7	2901.2	2911.9
7.5°	2127.7	2147.6	2167.5	2248.0	2412.8	2617.8	2740.7	2823.4	2866.9	2905.5	2921.1
10°	2093.4	2085.3	2077.3	2114.9	2230.3	2461.1	2689.2	2801.9	2858.3	2901.2	2914.6
12.5°	2226.5	2119.7	2060.1	2061.2	2137.9	2297.9	2599.0	2771.8	2845.4	2886.2	2901.7
15°	2410.1	2359.1	2141.7	2018.2	2042.4	2144.4	2426.2	2721.4	2812.6	2850.2	2874.4
17.5°	2418.7	2395.6	2329.6	2061.2	1979.0	2046.1	2257.1	2648.9	2764.9	2809.4	2830.9
20°	2410.1	2380.5	2340.3	2168.5	1951.1	1996.8	2171.2	2595.3	2724.1	2775.1	2796.5
22.5°	2410.1	2365.5	2329.6	2228.6	1931.8	1945.2	2111.1	2522.3	2681.1	2734.3	2755.7
25°	2372.5	2343.0	2273.2	2235.6	1910.9	1881.4	2037.0	2396.7	2611.4	2657.0	2689.2
27.5°	2309.2	2294.1	2219.0	2192.1	1924.8	1806.7	1972.1	2258.7	2515.3	2580.2	2615.1
30°	2259.8	2249.0	2173.9	2157.8	1927.0	1755.2	1927.0	2157.8	2431.5	2520.1	2565.7
32.5°	2184.6	2188.9	2128.8	2106.3	1912.0	1705.8	1871.2	2044.0	2307.0	2457.8	2512.1
35°	2080.0	2082.6	2047.8	2018.2	1862.6	1615.7	1776.7	1822.3	2155.1	2369.8	2415.4
37.5°	1994.6	1983.3	1931.3	1933.4	1785.8	1526.6	1665.0	1572.7	2017.7	2277.0	2310.2
40°	1932.4	1918.9	1851.8	1873.3	1725.7	1470.7	1572.7	1422.4	1886.7	2206.1	2232.9
42.5°	1870.1	1856.7	1774.5	1800.3	1652.7	1406.3	1450.3	1310.8	1742.9	2131.0	2138.5
45°	1776.7	1763.3	1674.7	1677.4	1535.1	1307.0	1199.7	1175.5	1658.6	2010.2	2010.2
47.5°	1672.6	1660.7	1565.7	1555.5	1398.8	1198.6	967.2	1140.1	1540.5	1880.3	1879.2
50°	1599.6	1594.2	1494.9	1476.1	1293.6	1119.2	853.5	1137.9	1454.6	1768.6	1795.5
52.5°	1520.1	1521.2	1430.5	1407.4	1201.3	1026.8	789.0	1054.2	1349.4	1624.8	1709.6
55°	1414.4	1411.7	1331.2	1301.7	1065.5	866.9	711.2	958.1	1186.2	1425.1	1567.4
57.5°	1300.6	1294.1	1218.5	1195.4	947.9	718.7	623.2	926.5	932.9	1242.6	1424.0
60°	1221.1	1210.4	1143.3	1113.8	874.9	630.7	560.9	864.2	713.9	1113.8	1312.4
62.5°	1133.1	1113.8	1068.2	1036.5	814.8	587.8	518.0	799.8	557.2	967.8	1205.0
65°	995.7	982.3	952.8	917.9	719.3	520.7	461.6	665.6	434.8	662.9	1046.7
67.5°	845.9	837.9	820.7	781.5	624.8	468.1	409.6	480.9	330.6	420.8	895.9
70°	751.5	743.4	732.7	697.8	558.2	429.4	373.1	375.7	236.2	311.3	797.1
72.5°	646.3	644.7	638.2	603.3	489.5	388.6	343.0	324.2	199.7	244.8	696.2
75°	501.9	499.2	496.5	472.4	386.5	322.1	292.5	252.3	201.3	174.4	544.8
77.5°	360.2	358.6	359.1	344.1	286.1	249.1	222.8	176.1	179.8	132.6	407.9
80°	265.7	268.4	271.1	260.3	217.4	193.2	169.1	139.6	147.6	104.7	311.3
82.5°	188.4	193.2	189.5	187.3	159.4	141.7	119.7	103.1	104.7	83.2	231.9
85°	96.6	88.6	93.9	91.2	80.5	72.5	56.4	42.9	53.7	48.3	115.4
87.5°	25.8	30.1	30.1	32.2	30.1	25.8	17.2	10.7	19.3	23.6	47.2
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°	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8	2836.8
2.5°	2866.9	2866.9	2886.2	2890.5	2894.8	2888.3	2894.8	2890.5	2886.2	2866.9	2866.9
5°	2909.3	2909.3	2936.1	2944.2	2944.2	2938.8	2944.2	2944.2	2936.1	2909.3	2909.3
7.5°	2913.0	2917.3	2944.2	2950.1	2954.9	2946.8	2954.9	2950.1	2944.2	2917.3	2913.0
10°	2906.6	2917.3	2944.2	2952.2	2954.9	2946.8	2954.9	2952.2	2944.2	2917.3	2906.6
12.5°	2898.0	2906.6	2933.4	2939.3	2944.2	2938.2	2944.2	2939.3	2933.4	2906.6	2898.0
15°	2869.0	2879.7	2909.3	2914.6	2920.0	2911.9	2920.0	2914.6	2909.3	2879.7	2869.0
17.5°	2828.7	2842.2	2869.0	2877.6	2880.3	2870.1	2880.3	2877.6	2869.0	2842.2	2828.7
20°	2796.5	2810.0	2836.8	2847.5	2850.2	2842.2	2850.2	2847.5	2836.8	2810.0	2796.5
22.5°	2755.7	2777.8	2802.4	2806.7	2803.0	2794.9	2803.0	2806.7	2802.4	2777.8	2755.7
25°	2697.2	2716.0	2724.1	2724.1	2724.1	2716.0	2724.1	2724.1	2724.1	2716.0	2697.2
27.5°	2622.6	2632.3	2637.1	2641.4	2646.8	2641.4	2646.8	2641.4	2637.1	2632.3	2622.6
30°	2571.1	2565.7	2579.2	2589.9	2595.3	2589.9	2595.3	2589.9	2579.2	2565.7	2571.1
32.5°	2500.2	2503.5	2523.3	2529.8	2530.8	2525.5	2530.8	2529.8	2523.3	2503.5	2500.2
35°	2396.7	2410.1	2423.5	2428.9	2431.5	2423.5	2431.5	2428.9	2423.5	2410.1	2396.7
37.5°	2287.2	2310.8	2320.4	2314.5	2315.1	2306.5	2315.1	2314.5	2320.4	2310.8	2287.2
40°	2214.2	2235.6	2241.0	2232.9	2235.6	2224.9	2235.6	2232.9	2241.0	2235.6	2214.2
42.5°	2145.4	2162.6	2157.3	2147.1	2145.4	2141.2	2145.4	2147.1	2157.3	2162.6	2145.4
45°	2031.7	2039.7	2015.5	2007.5	2002.1	1996.8	2002.1	2007.5	2015.5	2039.7	2031.7
47.5°	1907.1	1896.4	1873.3	1861.0	1845.9	1835.7	1845.9	1861.0	1873.3	1896.4	1907.1
50°	1827.7	1795.5	1776.7	1747.2	1736.4	1739.1	1736.4	1747.2	1776.7	1795.5	1827.7
52.5°	1731.1	1692.4	1662.9	1637.7	1629.1	1627.5	1629.1	1637.7	1662.9	1692.4	1731.1
55°	1591.5	1532.5	1484.2	1470.7	1468.0	1473.4	1468.0	1470.7	1484.2	1532.5	1591.5
57.5°	1420.3	1362.3	1322.6	1311.9	1302.7	1294.1	1302.7	1311.9	1322.6	1362.3	1420.3
60°	1304.3	1250.7	1213.1	1202.4	1178.2	1167.5	1178.2	1202.4	1213.1	1250.7	1304.3
62.5°	1201.3	1136.9	1107.9	1086.4	1068.7	1051.5	1068.7	1086.4	1107.9	1136.9	1201.3
65°	1052.1	976.9	947.4	928.6	896.4	888.3	896.4	928.6	947.4	976.9	1052.1
67.5°	888.9	823.4	786.4	761.1	740.7	740.2	740.7	761.1	786.4	823.4	888.9
70°	783.7	724.6	689.7	660.2	644.1	641.4	644.1	660.2	689.7	724.6	783.7
72.5°	680.6	623.7	593.1	565.7	551.8	549.1	551.8	565.7	593.1	623.7	680.6
75°	534.1	480.4	456.2	437.5	426.7	421.4	426.7	437.5	456.2	480.4	534.1
77.5°	395.1	351.6	339.2	319.9	310.8	310.2	310.8	319.9	339.2	351.6	395.1
80°	311.3	276.4	257.6	246.9	244.2	241.5	244.2	246.9	257.6	276.4	311.3
82.5°	225.4	205.6	193.2	186.8	186.3	181.4	186.3	186.8	193.2	205.6	225.4
85°	120.8	115.4	112.7	110.0	107.4	107.4	107.4	110.0	112.7	115.4	120.8
87.5°	49.4	51.5	51.5	53.7	55.8	53.7	55.8	53.7	51.5	51.5	49.4
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-840-1D-UNV-STD-W-8

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2836.8	2836.8	2836.8	2836.8
2.5°	2873.3	2869.0	2856.1	2856.1
5°	2911.9	2901.2	2871.7	2850.2
7.5°	2921.1	2905.5	2866.9	2823.4
10°	2914.6	2901.2	2858.3	2801.9
12.5°	2901.7	2886.2	2845.4	2771.8
15°	2874.4	2850.2	2812.6	2721.4
17.5°	2830.9	2809.4	2764.9	2648.9
20°	2796.5	2775.1	2724.1	2595.3
22.5°	2755.7	2734.3	2681.1	2522.3
25°	2689.2	2657.0	2611.4	2396.7
27.5°	2615.1	2580.2	2515.3	2258.7
30°	2565.7	2520.1	2431.5	2157.8
32.5°	2512.1	2457.8	2307.0	2044.0
35°	2415.4	2369.8	2155.1	1822.3
37.5°	2310.2	2277.0	2017.7	1572.7
40°	2232.9	2206.1	1886.7	1422.4
42.5°	2138.5	2131.0	1742.9	1310.8
45°	2010.2	2010.2	1658.6	1175.5
47.5°	1879.2	1880.3	1540.5	1140.1
50°	1795.5	1768.6	1454.6	1137.9
52.5°	1709.6	1624.8	1349.4	1054.2
55°	1567.4	1425.1	1186.2	958.1
57.5°	1424.0	1242.6	932.9	926.5
60°	1312.4	1113.8	713.9	864.2
62.5°	1205.0	967.8	557.2	799.8
65°	1046.7	662.9	434.8	665.6
67.5°	895.9	420.8	330.6	480.9
70°	797.1	311.3	236.2	375.7
72.5°	696.2	244.8	199.7	324.2
75°	544.8	174.4	201.3	252.3
77.5°	407.9	132.6	179.8	176.1
80°	311.3	104.7	147.6	139.6
82.5°	231.9	83.2	104.7	103.1
85°	115.4	48.3	53.7	42.9
87.5°	47.2	23.6	19.3	10.7
90°	0.0	0.0	0.0	0.0

(END OF REPORT)