

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-830-1D-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-830-1D-UNV-STD-W-12
Description: CORELITE SQ4 SUSPENDED LED LUMINAIRE
DOWNLIGHT 750 LUMENS PER FOOT
DIRECT ONLY
Light Source: 3000K CCT, 80 CRI LEDS
Ballast/Driver: -

Summary

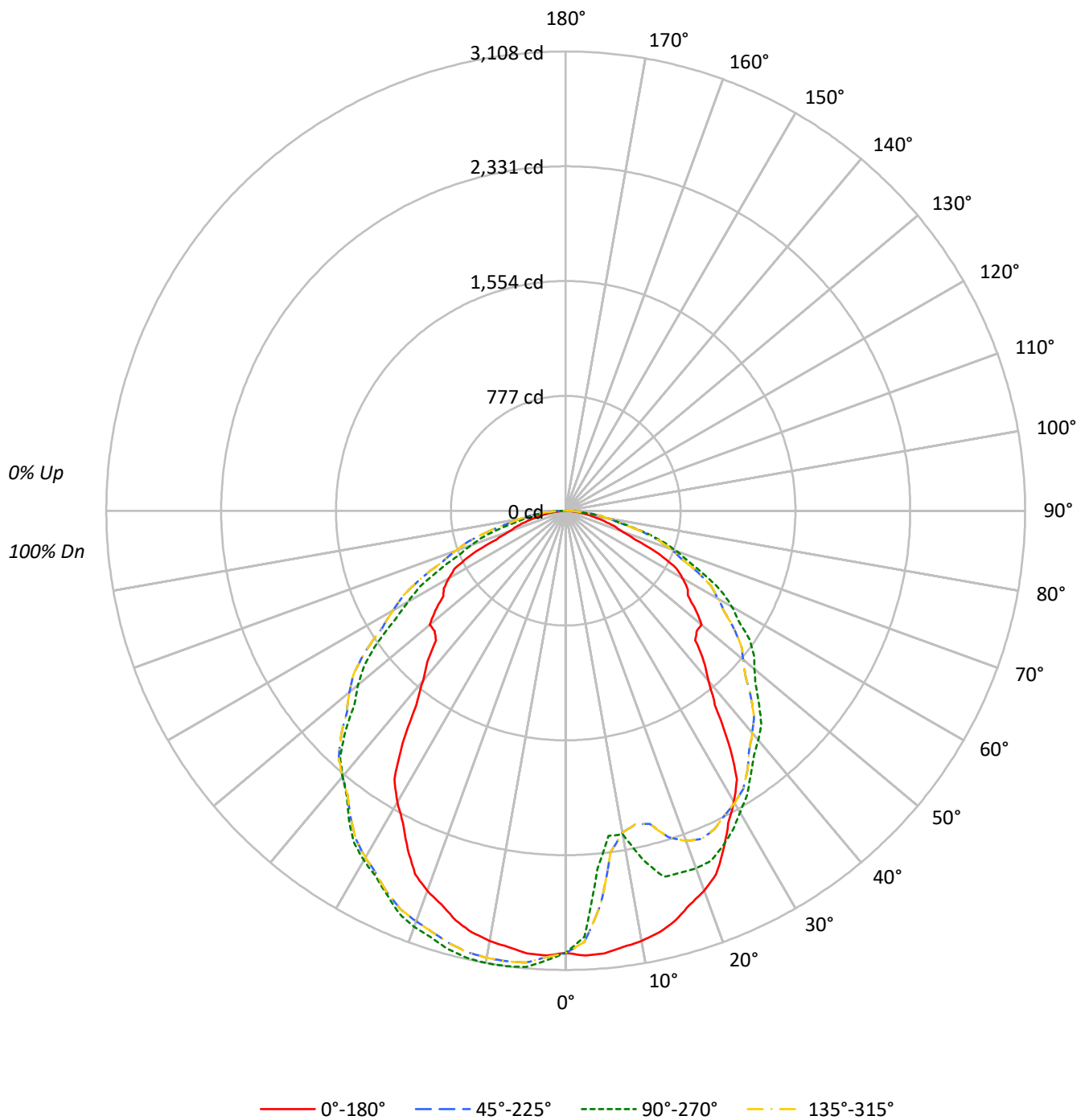
Lumens per Lamp: N/A
Luminaire Lumens: 7754.6 lumens
Efficiency: N/A
Efficacy: 97.7 lumens/watt
Spacing Criteria (0/90/45): 1.14 / 1.26 / 1.36
Luminous Opening: Rectangular (W 0.29' x L: 12' x H: 0')
CIE Type: Direct

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	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°	9203	9203	9203	9203
5°	9282	7525	9282	9570
10°	9230	6940	9230	9707
15°	9140	8167	9140	9780
20°	8960	8432	8960	9812
25°	8579	8511	8579	9722
30°	8083	8375	8083	9702
35°	7217	8195	7217	9598
40°	6024	8138	6024	9422
45°	5393	8041	5393	9161
50°	5743	7965	5743	8777
55°	5419	8137	5419	8334
60°	5607	7975	5607	7575
65°	5109	7623	5109	6819
70°	3564	7153	3564	6084
75°	3162	6324	3162	5282
80°	2607	4913	2607	4513
85°	1598	3398	1598	3994

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 230°

Vertical Angle: 45°

Luminance: 9358 cd/sqm

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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	269.8	3.5
10°-20°	766.6	9.9
20°-30°	1184.8	15.3
30°-40°	1415.5	18.3
40°-50°	1424.6	18.4
50°-60°	1236.9	16.0
60°-70°	875.6	11.3
70°-80°	463.1	6.0
80°-90°	117.8	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°	2221.1	28.6
0°-40°	3636.6	46.9
0°-60°	6298.1	81.2
0°-90°	7754.6	100.0
90°-120°	0.0	0.0
90°-150°	0.0	0.0
90°-180°	0.0	0.0
0°-180°	7754.6	100.0

CANDELA DISTRIBUTION:

	0°	90°	180°	270°	360°	Flux
0°	2992	2992	2992	2992	2992	
5°	3007	2438	3007	3100	3007	285
15°	2871	2565	2871	3072	2871	807
25°	2528	2508	2528	2865	2528	1159
35°	1922	2183	1922	2556	1922	1187
45°	1240	1849	1240	2106	1240	999
55°	1011	1518	1011	1554	1011	930
65°	702	1048	702	937	702	668
75°	266	532	266	444	266	281
85°	45	96	45	113	45	65
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°	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5
2.5°	3012.8	2990.2	2981.1	2963.0	2929.0	2910.9	2924.5	2901.9	2910.9	2886.0	2910.9
5°	3006.6	2955.7	2913.2	2842.4	2740.5	2621.6	2593.3	2519.7	2474.4	2437.6	2474.4
7.5°	2978.3	2891.1	2761.4	2545.1	2371.3	2286.4	2265.4	2244.5	2238.8	2220.1	2238.8
10°	2955.7	2836.7	2596.1	2352.6	2230.9	2191.3	2199.8	2208.2	2225.2	2222.4	2225.2
12.5°	2923.9	2741.6	2424.0	2255.2	2174.3	2173.1	2236.0	2348.7	2426.8	2421.7	2426.8
15°	2870.7	2559.3	2262.0	2154.5	2129.0	2259.2	2488.5	2542.3	2562.1	2565.0	2562.1
17.5°	2794.3	2380.9	2158.4	2087.6	2174.3	2457.4	2527.0	2551.4	2568.4	2569.5	2568.4
20°	2737.7	2290.3	2106.3	2058.2	2287.5	2468.7	2511.2	2542.3	2570.6	2576.3	2570.6
22.5°	2660.7	2226.9	2052.0	2037.8	2350.9	2457.4	2495.3	2542.3	2566.1	2565.0	2566.1
25°	2528.2	2148.8	1984.6	2015.7	2358.3	2397.9	2471.5	2502.7	2505.5	2508.3	2505.5
27.5°	2382.6	2080.3	1905.9	2030.5	2312.4	2340.7	2420.0	2435.9	2446.6	2442.1	2446.6
30°	2276.2	2032.7	1851.5	2032.7	2276.2	2293.2	2372.5	2383.8	2369.6	2358.3	2369.6
32.5°	2156.2	1973.8	1799.4	2016.9	2221.8	2245.6	2309.0	2304.5	2290.3	2281.3	2290.3
35°	1922.3	1874.2	1704.3	1964.8	2129.0	2160.1	2196.9	2194.1	2191.3	2182.8	2191.3
37.5°	1659.0	1756.4	1610.3	1883.8	2039.5	2037.2	2092.2	2104.1	2101.2	2090.5	2101.2
40°	1500.5	1659.0	1551.4	1820.4	1976.1	1953.4	2024.2	2038.4	2035.6	2027.1	2035.6
42.5°	1382.7	1529.9	1483.5	1743.4	1899.1	1871.9	1958.5	1972.7	1965.3	1959.1	1965.3
45°	1240.0	1265.5	1378.7	1619.4	1769.4	1766.6	1860.0	1874.2	1857.2	1848.7	1857.2
47.5°	1202.6	1020.3	1264.4	1475.6	1640.9	1651.7	1751.9	1764.3	1749.0	1741.7	1749.0
50°	1200.4	900.3	1180.6	1364.6	1557.1	1576.9	1681.7	1687.3	1667.5	1664.7	1667.5
52.5°	1112.1	832.3	1083.2	1267.2	1484.6	1509.0	1604.7	1603.5	1601.8	1605.8	1601.8
55°	1010.7	750.2	914.4	1123.9	1373.1	1404.2	1489.2	1492.0	1511.8	1517.5	1511.8
57.5°	977.3	657.4	758.2	999.9	1261.0	1285.3	1365.1	1371.9	1385.5	1385.0	1385.5
60°	911.6	591.7	665.3	922.9	1174.9	1206.0	1276.8	1288.1	1299.5	1296.6	1299.5
62.5°	843.7	546.4	620.0	859.5	1093.4	1126.8	1174.9	1195.3	1199.8	1194.7	1199.8
65°	702.1	486.9	549.2	758.7	968.2	1005.0	1036.2	1050.3	1053.2	1047.5	1053.2
67.5°	507.3	432.0	493.7	659.1	824.4	865.7	883.9	892.4	889.5	899.7	889.5
70°	396.4	393.5	453.0	588.9	736.1	772.9	784.2	792.7	789.9	795.5	789.9
72.5°	342.0	361.8	409.9	516.4	636.4	673.2	680.0	681.7	690.2	684.6	690.2
75°	266.1	308.6	339.7	407.7	498.3	523.8	526.6	529.4	523.8	532.2	523.8
77.5°	185.7	235.0	262.7	301.8	362.9	378.8	378.2	379.9	375.4	374.8	375.4
80°	147.2	178.4	203.8	229.3	274.6	285.9	283.1	280.3	280.3	277.4	280.3
82.5°	108.7	126.3	149.5	168.2	197.6	199.9	203.8	198.7	198.7	202.7	198.7
85°	45.3	59.5	76.4	84.9	96.3	99.1	93.4	101.9	96.3	96.3	96.3
87.5°	11.3	18.1	27.2	31.7	34.0	31.7	31.7	27.2	27.2	27.2	27.2
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):

	110°	120°	130°	140°	150°	160°	170°	180°	190°	200°	210°
0°	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5
2.5°	2901.9	2924.5	2910.9	2929.0	2963.0	2981.1	2990.2	3012.8	3012.8	3026.4	3031.0
5°	2519.7	2593.3	2621.6	2740.5	2842.4	2913.2	2955.7	3006.6	3029.3	3060.4	3071.7
7.5°	2244.5	2265.4	2286.4	2371.3	2545.1	2761.4	2891.1	2978.3	3024.2	3064.9	3081.4
10°	2208.2	2199.8	2191.3	2230.9	2352.6	2596.1	2836.7	2955.7	3015.1	3060.4	3074.6
12.5°	2348.7	2236.0	2173.1	2174.3	2255.2	2424.0	2741.6	2923.9	3001.5	3044.5	3061.0
15°	2542.3	2488.5	2259.2	2129.0	2154.5	2262.0	2559.3	2870.7	2967.0	3006.6	3032.1
17.5°	2551.4	2527.0	2457.4	2174.3	2087.6	2158.4	2380.9	2794.3	2916.6	2963.6	2986.2
20°	2542.3	2511.2	2468.7	2287.5	2058.2	2106.3	2290.3	2737.7	2873.6	2927.3	2950.0
22.5°	2542.3	2495.3	2457.4	2350.9	2037.8	2052.0	2226.9	2660.7	2828.3	2884.3	2907.0
25°	2502.7	2471.5	2397.9	2358.3	2015.7	1984.6	2148.8	2528.2	2754.6	2802.8	2836.7
27.5°	2435.9	2420.0	2340.7	2312.4	2030.5	1905.9	2080.3	2382.6	2653.3	2721.8	2758.6
30°	2383.8	2372.5	2293.2	2276.2	2032.7	1851.5	2032.7	2276.2	2565.0	2658.4	2706.5
32.5°	2304.5	2309.0	2245.6	2221.8	2016.9	1799.4	1973.8	2156.2	2433.6	2592.7	2649.9
35°	2194.1	2196.9	2160.1	2129.0	1964.8	1704.3	1874.2	1922.3	2273.4	2499.8	2548.0
37.5°	2104.1	2092.2	2037.2	2039.5	1883.8	1610.3	1756.4	1659.0	2128.4	2401.9	2437.0
40°	2038.4	2024.2	1953.4	1976.1	1820.4	1551.4	1659.0	1500.5	1990.3	2327.2	2355.5
42.5°	1972.7	1958.5	1871.9	1899.1	1743.4	1483.5	1529.9	1382.7	1838.5	2247.9	2255.8
45°	1874.2	1860.0	1766.6	1769.4	1619.4	1378.7	1265.5	1240.0	1749.6	2120.5	2120.5
47.5°	1764.3	1751.9	1651.7	1640.9	1475.6	1264.4	1020.3	1202.6	1625.0	1983.5	1982.3
50°	1687.3	1681.7	1576.9	1557.1	1364.6	1180.6	900.3	1200.4	1534.4	1865.7	1894.0
52.5°	1603.5	1604.7	1509.0	1484.6	1267.2	1083.2	832.3	1112.1	1423.5	1713.9	1803.4
55°	1492.0	1489.2	1404.2	1373.1	1123.9	914.4	750.2	1010.7	1251.3	1503.3	1653.4
57.5°	1371.9	1365.1	1285.3	1261.0	999.9	758.2	657.4	977.3	984.1	1310.8	1502.2
60°	1288.1	1276.8	1206.0	1174.9	922.9	665.3	591.7	911.6	753.1	1174.9	1384.4
62.5°	1195.3	1174.9	1126.8	1093.4	859.5	620.0	546.4	843.7	587.7	1020.9	1271.2
65°	1050.3	1036.2	1005.0	968.2	758.7	549.2	486.9	702.1	458.6	699.3	1104.1
67.5°	892.4	883.9	865.7	824.4	659.1	493.7	432.0	507.3	348.8	443.9	945.0
70°	792.7	784.2	772.9	736.1	588.9	453.0	393.5	396.4	249.1	328.4	840.8
72.5°	681.7	680.0	673.2	636.4	516.4	409.9	361.8	342.0	210.6	258.2	734.4
75°	529.4	526.6	523.8	498.3	407.7	339.7	308.6	266.1	212.3	184.0	574.7
77.5°	379.9	378.2	378.8	362.9	301.8	262.7	235.0	185.7	189.7	139.9	430.3
80°	280.3	283.1	285.9	274.6	229.3	203.8	178.4	147.2	155.7	110.4	328.4
82.5°	198.7	203.8	199.9	197.6	168.2	149.5	126.3	108.7	110.4	87.8	244.6
85°	101.9	93.4	99.1	96.3	84.9	76.4	59.5	45.3	56.6	51.0	121.7
87.5°	27.2	31.7	31.7	34.0	31.7	27.2	18.1	11.3	20.4	24.9	49.8
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°	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5	2992.5
2.5°	3024.2	3024.2	3044.5	3049.1	3053.6	3046.8	3053.6	3049.1	3044.5	3024.2	3024.2
5°	3068.9	3068.9	3097.2	3105.7	3105.7	3100.0	3105.7	3105.7	3097.2	3068.9	3068.9
7.5°	3072.9	3077.4	3105.7	3111.9	3117.0	3108.5	3117.0	3111.9	3105.7	3077.4	3072.9
10°	3066.1	3077.4	3105.7	3114.2	3117.0	3108.5	3117.0	3114.2	3105.7	3077.4	3066.1
12.5°	3057.0	3066.1	3094.4	3100.6	3105.7	3099.5	3105.7	3100.6	3094.4	3066.1	3057.0
15°	3026.4	3037.8	3068.9	3074.6	3080.2	3071.7	3080.2	3074.6	3068.9	3037.8	3026.4
17.5°	2984.0	2998.1	3026.4	3035.5	3038.3	3027.6	3038.3	3035.5	3026.4	2998.1	2984.0
20°	2950.0	2964.1	2992.5	3003.8	3006.6	2998.1	3006.6	3003.8	2992.5	2964.1	2950.0
22.5°	2907.0	2930.2	2956.2	2960.7	2956.8	2948.3	2956.8	2960.7	2956.2	2930.2	2907.0
25°	2845.2	2865.1	2873.6	2873.6	2873.6	2865.1	2873.6	2873.6	2873.6	2865.1	2845.2
27.5°	2766.5	2776.7	2781.8	2786.4	2792.0	2786.4	2792.0	2786.4	2781.8	2776.7	2766.5
30°	2712.2	2706.5	2720.7	2732.0	2737.7	2732.0	2737.7	2732.0	2720.7	2706.5	2712.2
32.5°	2637.4	2640.8	2661.8	2668.6	2669.7	2664.1	2669.7	2668.6	2661.8	2640.8	2637.4
35°	2528.2	2542.3	2556.5	2562.1	2565.0	2556.5	2565.0	2562.1	2556.5	2542.3	2528.2
37.5°	2412.7	2437.6	2447.8	2441.5	2442.1	2433.0	2442.1	2441.5	2447.8	2437.6	2412.7
40°	2335.6	2358.3	2364.0	2355.5	2358.3	2347.0	2358.3	2355.5	2364.0	2358.3	2335.6
42.5°	2263.2	2281.3	2275.6	2264.9	2263.2	2258.6	2263.2	2264.9	2275.6	2281.3	2263.2
45°	2143.1	2151.6	2126.1	2117.7	2112.0	2106.3	2112.0	2117.7	2126.1	2151.6	2143.1
47.5°	2011.8	2000.4	1976.1	1963.1	1947.2	1936.5	1947.2	1963.1	1976.1	2000.4	2011.8
50°	1928.0	1894.0	1874.2	1843.0	1831.7	1834.5	1831.7	1843.0	1874.2	1894.0	1928.0
52.5°	1826.1	1785.3	1754.1	1727.5	1718.5	1716.8	1718.5	1727.5	1754.1	1785.3	1826.1
55°	1678.8	1616.6	1565.6	1551.4	1548.6	1554.3	1548.6	1551.4	1565.6	1616.6	1678.8
57.5°	1498.2	1437.1	1395.2	1383.8	1374.2	1365.1	1374.2	1383.8	1395.2	1437.1	1498.2
60°	1375.9	1319.3	1279.7	1268.3	1242.8	1231.5	1242.8	1268.3	1279.7	1319.3	1375.9
62.5°	1267.2	1199.2	1168.7	1146.0	1127.3	1109.2	1127.3	1146.0	1168.7	1199.2	1267.2
65°	1109.8	1030.5	999.4	979.6	945.6	937.1	945.6	979.6	999.4	1030.5	1109.8
67.5°	937.7	868.6	829.5	802.9	781.4	780.8	781.4	802.9	829.5	868.6	937.7
70°	826.7	764.4	727.6	696.4	679.5	676.6	679.5	696.4	727.6	764.4	826.7
72.5°	718.0	657.9	625.7	596.8	582.1	579.2	582.1	596.8	625.7	657.9	718.0
75°	563.4	506.8	481.3	461.5	450.1	444.5	450.1	461.5	481.3	506.8	563.4
77.5°	416.7	370.9	357.8	337.5	327.8	327.3	327.8	337.5	357.8	370.9	416.7
80°	328.4	291.6	271.8	260.5	257.6	254.8	257.6	260.5	271.8	291.6	328.4
82.5°	237.8	216.9	203.8	197.0	196.5	191.4	196.5	197.0	203.8	216.9	237.8
85°	127.4	121.7	118.9	116.1	113.2	113.2	113.2	116.1	118.9	121.7	127.4
87.5°	52.1	54.4	54.4	56.6	58.9	56.6	58.9	56.6	54.4	54.4	52.1
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-830-1D-UNV-STD-W-12

CANDELA DISTRIBUTION (continued):

	330°	340°	350°	360°
0°	2992.5	2992.5	2992.5	2992.5
2.5°	3031.0	3026.4	3012.8	3012.8
5°	3071.7	3060.4	3029.3	3006.6
7.5°	3081.4	3064.9	3024.2	2978.3
10°	3074.6	3060.4	3015.1	2955.7
12.5°	3061.0	3044.5	3001.5	2923.9
15°	3032.1	3006.6	2967.0	2870.7
17.5°	2986.2	2963.6	2916.6	2794.3
20°	2950.0	2927.3	2873.6	2737.7
22.5°	2907.0	2884.3	2828.3	2660.7
25°	2836.7	2802.8	2754.6	2528.2
27.5°	2758.6	2721.8	2653.3	2382.6
30°	2706.5	2658.4	2565.0	2276.2
32.5°	2649.9	2592.7	2433.6	2156.2
35°	2548.0	2499.8	2273.4	1922.3
37.5°	2437.0	2401.9	2128.4	1659.0
40°	2355.5	2327.2	1990.3	1500.5
42.5°	2255.8	2247.9	1838.5	1382.7
45°	2120.5	2120.5	1749.6	1240.0
47.5°	1982.3	1983.5	1625.0	1202.6
50°	1894.0	1865.7	1534.4	1200.4
52.5°	1803.4	1713.9	1423.5	1112.1
55°	1653.4	1503.3	1251.3	1010.7
57.5°	1502.2	1310.8	984.1	977.3
60°	1384.4	1174.9	753.1	911.6
62.5°	1271.2	1020.9	587.7	843.7
65°	1104.1	699.3	458.6	702.1
67.5°	945.0	443.9	348.8	507.3
70°	840.8	328.4	249.1	396.4
72.5°	734.4	258.2	210.6	342.0
75°	574.7	184.0	212.3	266.1
77.5°	430.3	139.9	189.7	185.7
80°	328.4	110.4	155.7	147.2
82.5°	244.6	87.8	110.4	108.7
85°	121.7	51.0	56.6	45.3
87.5°	49.8	24.9	20.4	11.3
90°	0.0	0.0	0.0	0.0

(END OF REPORT)