

## Loose Tube Double Jacket Single Armor Figure 8 - Sag and Tension Guide

Part Number 1AxxxxxM0

### Initial Sag and Tension<sup>1</sup>

Span ft	1 to 60 Fibers											
	0°F		20°F		40°F		60°F		80°F		100°F	
	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in
100	631	6.8	541	8.5	450	10.3	359	12.0	268	13.7	177	15.5
125	730	9.2	636	11.1	542	13.1	448	15.0	354	16.9	260	18.9
150	828	11.7	731	13.8	635	15.9	538	18.0	441	20.1	345	22.2
175	924	14.3	826	16.5	727	18.8	628	21.0	529	23.2	430	25.5
200	1020	16.9	919	19.3	818	21.6	718	24.0	617	26.4	516	28.7
225	1115	19.6	1012	22.0	910	24.5	807	27.0	705	29.5	602	32.0
250	1209	22.3	1105	24.8	1001	27.4	897	30.0	793	32.6	689	35.2
275	1303	25.0	1197	27.7	1092	30.3	987	33.0	881	35.7	776	38.3
300	1396	27.8	1289	30.5	1183	33.3	1076	36.0	970	38.7	863	41.5
325	1489	30.5	1381	33.4	1274	36.2	1166	39.0	1058	41.8	951	44.6
350	1582	33.3	1473	36.2	1364	39.1	1256	42.0	1147	44.9	1038	47.8
375	1674	36.2	1564	39.1	1455	42.1	1345	45.0	1236	47.9	1126	50.9
400	1766	39.0	1656	42.0	1545	45.0	1435	48.0	1325	51.0	1214	54.0
425	1858	41.8	1747	44.9	1636	47.9	1525	51.0	1414	54.1	1302	57.1
450	1950	44.7	1838	47.8	1726	50.9	1614	54.0	1503	57.1	1391	60.2
475	2041	47.6	1929	50.7	1817	53.9	1704	57.0	1592	60.1	1479	63.3
500	2133	50.5	2020	53.6	1907	56.8	1794	60.0	1681	63.2	1568	66.4
525	2224	53.3	2111	56.6	1997	59.8	1883	63.0	1770	66.2	1656	69.4
550	2316	56.2	2201	59.5	2087	62.7	1973	66.0	1859	69.3	1745	72.5
575	2407	59.1	2292	62.4	2177	65.7	2063	69.0	1948	72.3	1833	75.6
600	2498	62.0	2383	65.4	2268	68.7	2153	72.0	2037	75.3	1922	78.6
625	2589	65.0	2473	68.3	2358	71.7	2242	75.0	2127	78.3	2011	81.7
650	2680	67.9	2564	71.2	2448	74.6	2332	78.0	2216	81.4	2100	84.8
675	2771	70.8	2654	74.2	2538	77.6	2422	81.0	2305	84.4	2189	87.8

61 to 72 Fibers												
Span ft	0°F		20°F		40°F		60°F		80°F		100°F	
	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in
100	659	7.0	567	8.7	476	10.3	384	12.0	292	13.7	200	15.3
125	765	9.4	670	11.3	575	13.1	480	15.0	385	16.9	290	18.7
150	868	11.9	771	14.0	673	16.0	576	18.0	478	20.0	380	22.0
175	971	14.5	871	16.7	771	18.8	672	21.0	572	23.2	472	25.3
200	1073	17.2	971	19.4	869	21.7	768	24.0	666	26.3	564	28.6
225	1174	19.9	1070	22.2	967	24.6	863	27.0	760	29.4	656	31.8
250	1274	22.6	1169	25.1	1064	27.5	959	30.0	854	32.5	749	34.9
275	1374	25.3	1268	27.9	1162	30.4	1055	33.0	949	35.6	843	38.1
300	1474	28.1	1366	30.7	1259	33.4	1151	36.0	1044	38.6	936	41.3
325	1573	30.9	1464	33.6	1356	36.3	1247	39.0	1139	41.7	1030	44.4
350	1672	33.7	1562	36.5	1453	39.2	1343	42.0	1234	44.8	1124	47.5
375	1770	36.6	1660	39.4	1549	42.2	1439	45.0	1329	47.8	1218	50.6
400	1869	39.4	1757	42.3	1646	45.1	1535	48.0	1424	50.9	1313	53.7
425	1967	42.3	1855	45.2	1743	48.1	1631	51.0	1519	53.9	1407	56.8
450	2065	45.2	1952	48.1	1840	51.1	1727	54.0	1614	56.9	1502	59.9
475	2163	48.0	2049	51.0	1936	54.0	1823	57.0	1710	60.0	1596	63.0
500	2260	50.9	2146	54.0	2033	57.0	1919	60.0	1805	63.0	1691	66.0
525	2358	53.8	2243	56.9	2129	59.9	2015	63.0	1900	66.1	1786	69.1
550	2455	56.7	2340	59.8	2226	62.9	2111	66.0	1996	69.1	1881	72.2
575	2553	59.6	2437	62.8	2322	65.9	2207	69.0	2091	72.1	1976	75.2
600	2650	62.6	2534	65.7	2418	68.9	2303	72.0	2187	75.1	2071	78.3
625	2747	65.5	2631	68.7	2515	71.8	2398	75.0	2282	78.2	2166	81.3
650	2844	68.4	2728	71.6	2611	74.8	2494	78.0	2378	81.2	2261	84.4

73 to 96 Fibers												
Span ft	0°F		20°F		40°F		60°F		80°F		100°F	
	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in
100	780	7.6	685	9.1	590	10.5	494	12.0	399	13.5	303	14.9
125	914	10.1	815	11.8	716	13.4	618	15.0	519	16.6	420	18.2
150	1045	12.8	944	14.5	843	16.3	741	18.0	640	19.7	539	21.5
175	1175	15.5	1072	17.3	968	19.2	865	21.0	761	22.8	658	24.7
200	1305	18.2	1199	20.1	1094	22.1	988	24.0	883	25.9	778	27.9
225	1433	21.0	1326	23.0	1219	25.0	1112	27.0	1005	29.0	898	31.0
250	1561	23.7	1452	25.8	1344	27.9	1235	30.0	1127	32.1	1019	34.2
275	1688	26.6	1578	28.7	1469	30.9	1359	33.0	1249	35.1	1140	37.3
300	1815	29.4	1704	31.6	1593	33.8	1483	36.0	1372	38.2	1261	40.4
325	1941	32.3	1830	34.5	1718	36.8	1606	39.0	1494	41.2	1383	43.5
350	2068	35.1	1955	37.4	1842	39.7	1730	42.0	1617	44.3	1504	46.6
375	2194	38.0	2080	40.3	1967	42.7	1853	45.0	1740	47.3	1626	49.7
400	2319	40.9	2205	43.3	2091	45.6	1977	48.0	1863	50.4	1748	52.7
425	2445	43.8	2330	46.2	2215	48.6	2100	51.0	1985	53.4	1871	55.8
450	2570	46.7	2455	49.1	2339	51.6	2224	54.0	2108	56.4	1993	58.9
475	2695	49.6	2579	52.1	2463	54.5	2347	57.0	2231	59.5	2115	61.9
500	2821	52.6	2704	55.0	2587	57.5	2471	60.0	2354	62.5	2238	65.0

97 to 120 Fibers												
Span ft	0°F		20°F		40°F		60°F		80°F		100°F	
	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in
100	843	7.9	746	9.2	649	10.6	552	12.0	455	13.4	358	14.8
125	991	10.4	890	12.0	790	13.5	690	15.0	590	16.5	489	18.0
150	1136	13.1	1034	14.7	931	16.4	828	18.0	725	19.6	622	21.3
175	1281	15.8	1176	17.6	1071	19.3	966	21.0	861	22.7	756	24.4
200	1424	18.6	1318	20.4	1211	22.2	1104	24.0	997	25.8	890	27.6
225	1567	21.4	1459	23.3	1350	25.1	1242	27.0	1133	28.9	1025	30.7
250	1709	24.2	1599	26.1	1489	28.1	1380	30.0	1270	31.9	1160	33.9
275	1851	27.1	1740	29.0	1629	31.0	1518	33.0	1406	35.0	1295	37.0
300	1992	29.9	1880	31.9	1768	34.0	1656	36.0	1543	38.0	1431	40.1
325	2133	32.8	2020	34.9	1907	36.9	1793	39.0	1680	41.1	1567	43.1
350	2273	35.7	2159	37.8	2045	39.9	1931	42.0	1818	44.1	1704	46.2
375	2414	38.6	2299	40.7	2184	42.9	2069	45.0	1955	47.1	1840	49.3
400	2554	41.5	2438	43.7	2323	45.8	2207	48.0	2092	50.2	1977	52.3
425	2693	44.4	2577	46.6	2461	48.8	2345	51.0	2229	53.2	2113	55.4
450	2833	47.3	2717	49.6	2600	51.8	2483	54.0	2367	56.2	2250	58.4
475	2973	50.3	2856	52.5	2738	54.8	2621	57.0	2504	59.2	2387	61.5

121 to 144 Fibers												
Span ft	0°F		20°F		40°F		60°F		80°F		100°F	
	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in
100	903	8.1	805	9.4	707	10.7	608	12.0	510	13.3	411	14.6
125	1065	10.7	963	12.1	862	13.6	760	15.0	659	16.4	557	17.9
150	1225	13.4	1121	14.9	1016	16.5	912	18.0	808	19.5	704	21.1
175	1384	16.2	1277	17.8	1171	19.4	1064	21.0	958	22.6	851	24.2
200	1541	18.9	1433	20.6	1325	22.3	1216	24.0	1108	25.7	1000	27.4
225	1698	21.8	1588	23.5	1478	25.3	1368	27.0	1259	28.7	1149	30.5
250	1854	24.6	1743	26.4	1631	28.2	1520	30.0	1409	31.8	1298	33.6
275	2009	27.5	1897	29.3	1785	31.2	1672	33.0	1560	34.8	1448	36.7
300	2164	30.3	2051	32.2	1938	34.1	1824	36.0	1711	37.9	1598	39.8
325	2319	33.2	2205	35.2	2091	37.1	1976	39.0	1862	40.9	1748	42.8
350	2474	36.1	2359	38.1	2244	40.0	2129	42.0	2014	44.0	1899	45.9
375	2628	39.1	2512	41.0	2396	43.0	2281	45.0	2165	47.0	2049	49.0
400	2782	42.0	2665	44.0	2549	46.0	2433	48.0	2316	50.0	2200	52.0
425	2936	44.9	2819	46.9	2702	49.0	2585	51.0	2468	53.0	2351	55.1

145 to 216 Fibers												
Span ft	0°F		20°F		40°F		60°F		80°F		100°F	
	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in
100	890	8.0	792	9.4	694	10.7	596	12.0	498	13.3	399	14.6
125	1049	10.7	947	12.1	846	13.6	745	15.0	643	16.4	542	17.9
150	1205	13.3	1101	14.9	997	16.4	893	18.0	790	19.6	686	21.1
175	1361	16.1	1255	17.7	1149	19.4	1042	21.0	936	22.6	830	24.3
200	1515	18.9	1407	20.6	1299	22.3	1191	24.0	1083	25.7	975	27.4
225	1669	21.7	1559	23.5	1450	25.2	1340	27.0	1231	28.8	1121	30.5
250	1822	24.5	1711	26.3	1600	28.2	1489	30.0	1378	31.8	1267	33.7
275	1974	27.4	1862	29.3	1750	31.1	1638	33.0	1526	34.9	1414	36.7
300	2126	30.3	2013	32.2	1900	34.1	1787	36.0	1674	37.9	1561	39.8
325	2278	33.1	2164	35.1	2050	37.0	1936	39.0	1822	41.0	1708	42.9
350	2429	36.0	2314	38.0	2200	40.0	2085	42.0	1970	44.0	1855	46.0
375	2580	39.0	2465	41.0	2349	43.0	2234	45.0	2118	47.0	2003	49.0
400	2731	41.9	2615	43.9	2499	46.0	2383	48.0	2266	50.0	2150	52.1
425	2882	44.8	2765	46.9	2648	48.9	2532	51.0	2415	53.1	2298	55.1

217 to 288 Fibers												
Span ft	0°F		20°F		40°F		60°F		80°F		100°F	
	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in	Tension lbs	Sag in
100	986	8.3	886	9.6	786	10.8	686	12.0	586	13.2	485	14.4
125	1167	11.0	1064	12.3	961	13.7	857	15.0	754	16.3	651	17.7
150	1347	13.8	1241	15.2	1135	16.6	1029	18.0	923	19.4	817	20.8
175	1524	16.5	1416	18.0	1308	19.5	1200	21.0	1092	22.5	984	24.0
200	1701	19.4	1591	20.9	1481	22.5	1372	24.0	1262	25.5	1152	27.1
225	1877	22.2	1766	23.8	1654	25.4	1543	27.0	1432	28.6	1321	30.2
250	2052	25.1	1940	26.7	1827	28.4	1715	30.0	1602	31.6	1489	33.3
275	2227	27.9	2113	29.6	2000	31.3	1886	33.0	1772	34.7	1659	36.4
300	2401	30.8	2287	32.6	2172	34.3	2057	36.0	1943	37.7	1828	39.4
325	2575	33.8	2460	35.5	2344	37.3	2229	39.0	2113	40.7	1998	42.5
350	2749	36.7	2633	38.4	2517	40.2	2400	42.0	2284	43.8	2168	45.6
375	2923	39.6	2806	41.4	2689	43.2	2572	45.0	2455	46.8	2338	48.6

## NESC Ice and Wind Loading Districts<sup>1</sup>

Span ft	1 to 60 Fibers															
	Heavy Plus <sup>2</sup>				Heavy				Medium				Light			
	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	27.0	9.7	28.7	1568	17.6	9.6	20.1	1061	13.0	9.7	16.2	795	5.9	16.1	17.1	733
125	36.4	13.1	38.7	1818	23.7	13.0	27.1	1230	17.4	13.0	21.7	930	7.8	21.3	22.6	865
150	46.4	16.7	49.3	2055	30.2	16.6	34.5	1390	21.9	16.4	27.4	1059	9.8	26.7	28.4	992
175	56.9	20.5	60.4	2281	37.0	20.3	42.2	1545	26.7	20.0	33.4	1184	11.8	32.3	34.4	1115
200	67.8	24.4	72.1	2498	44.1	24.1	50.3	1695	31.6	23.7	39.5	1306	13.9	38.1	40.6	1235
225	79.2	28.5	84.2	2708	51.4	28.1	58.6	1840	36.7	27.5	45.8	1426	16.1	44.1	46.9	1352
250	90.9	32.7	96.6	2912	58.9	32.3	67.2	1982	41.9	31.3	52.3	1542	18.3	50.1	53.4	1467
275	103.0	37.0	109.5	3110	66.6	36.5	75.9	2121	47.1	35.3	58.9	1657	20.6	56.3	60.0	1580
300	115.4	41.5	122.6	3304	74.5	40.8	84.9	2257	52.5	39.3	65.6	1771	22.9	62.6	66.6	1692
325	-	-	-	-	82.5	45.2	94.1	2391	58.0	43.4	72.4	1882	25.2	69.0	73.4	1802
350	-	-	-	-	90.7	49.7	103.4	2523	63.5	47.5	79.3	1993	27.6	75.4	80.3	1911
375	-	-	-	-	99.0	54.2	112.9	2653	69.1	51.7	86.3	2102	30.0	82.0	87.3	2019
400	-	-	-	-	107.5	58.9	122.5	2781	74.8	56.0	93.4	2210	32.4	88.6	94.3	2126
425	-	-	-	-	116.0	63.5	132.3	2908	80.5	60.2	100.6	2318	34.8	95.2	101.4	2232
450	-	-	-	-	124.7	68.3	142.2	3033	86.3	64.6	107.8	2424	37.3	102.0	108.6	2337
475	-	-	-	-	133.5	73.1	152.2	3157	92.1	68.9	115.1	2530	39.8	108.8	115.8	2441
500	-	-	-	-	142.4	78.0	162.4	3280	98.0	73.3	122.4	2635	42.3	115.6	123.1	2545
525	-	-	-	-	-	-	-	-	104.0	77.8	129.8	2739	44.8	122.5	130.4	2648
550	-	-	-	-	-	-	-	-	109.9	82.3	137.3	2843	47.3	129.4	137.8	2750
575	-	-	-	-	-	-	-	-	116.0	86.8	144.8	2946	49.9	136.4	145.2	2852
600	-	-	-	-	-	-	-	-	122.0	91.3	152.4	3048	52.5	143.4	152.7	2954
625	-	-	-	-	-	-	-	-	128.1	95.9	160.0	3150	55.0	150.5	160.2	3055
650	-	-	-	-	-	-	-	-	134.2	100.4	167.6	3252	57.6	157.6	167.8	3155
675	-	-	-	-	-	-	-	-	-	-	-	-	60.2	164.7	175.4	3256

61 to 72 Fibers																
Span ft	Heavy Plus <sup>2</sup>				Heavy				Medium				Light			
	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	27.1	9.6	28.8	1599	17.8	9.6	20.2	1090	13.1	9.6	16.3	823	6.1	16.1	17.2	760
125	36.5	13.0	38.8	1856	23.9	12.9	27.2	1265	17.5	12.9	21.8	963	8.0	21.2	22.7	899
150	46.5	16.5	49.4	2098	30.4	16.4	34.6	1431	22.2	16.2	27.5	1099	10.0	26.7	28.5	1031
175	57.1	20.3	60.6	2330	37.2	20.1	42.3	1592	26.9	19.8	33.4	1229	12.2	32.3	34.5	1160
200	68.0	24.2	72.2	2552	44.3	23.9	50.3	1747	31.9	23.4	39.5	1357	14.3	38.0	40.6	1286
225	79.4	28.2	84.3	2768	51.6	27.8	58.6	1898	37.0	27.1	45.8	1482	16.5	43.9	46.9	1409
250	91.1	32.4	96.7	2977	59.1	31.9	67.2	2045	42.1	30.9	52.3	1604	18.8	49.9	53.4	1529
275	103.2	36.7	109.5	3181	66.8	36.0	75.9	2190	47.4	34.8	58.8	1725	21.1	56.1	59.9	1648
300	-	-	-	-	74.7	40.3	84.9	2331	52.8	38.7	65.5	1844	23.5	62.3	66.6	1765
325	-	-	-	-	82.7	44.6	94.0	2471	58.3	42.7	72.2	1961	25.9	68.6	73.3	1881
350	-	-	-	-	90.9	49.0	103.3	2608	63.8	46.8	79.1	2077	28.3	75.0	80.1	1996
375	-	-	-	-	99.2	53.5	112.7	2743	69.4	50.9	86.0	2192	30.7	81.5	87.0	2109
400	-	-	-	-	107.7	58.0	122.3	2877	75.1	55.0	93.1	2306	33.2	88.0	94.0	2222
425	-	-	-	-	116.2	62.6	132.0	3009	80.8	59.2	100.2	2419	35.6	94.6	101.1	2333
450	-	-	-	-	124.9	67.3	141.8	3139	86.6	63.5	107.3	2531	38.2	101.2	108.2	2444
475	-	-	-	-	133.6	72.0	151.8	3268	92.4	67.7	114.5	2642	40.7	107.9	115.3	2554
500	-	-	-	-	-	-	-	-	98.3	72.0	121.8	2752	43.2	114.7	122.5	2664
525	-	-	-	-	-	-	-	-	104.2	76.4	129.2	2862	45.8	121.5	129.8	2772
550	-	-	-	-	-	-	-	-	110.1	80.7	136.5	2972	48.4	128.3	137.1	2880
575	-	-	-	-	-	-	-	-	116.1	85.1	144.0	3080	51.0	135.2	144.5	2988
600	-	-	-	-	-	-	-	-	122.1	89.5	151.4	3188	53.6	142.1	151.9	3095
625	-	-	-	-	-	-	-	-	128.2	94.0	159.0	3296	56.2	149.0	159.3	3202
650	-	-	-	-	-	-	-	-	-	-	-	-	58.8	156.0	166.7	3308

73 to 96 Fibers																
Span ft	Heavy Plus <sup>2</sup>				Heavy				Medium				Light			
	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	27.7	9.4	29.3	1742	18.4	9.3	20.6	1222	13.8	9.4	16.6	947	6.7	16.2	17.5	886
125	37.2	12.6	39.3	2025	24.7	12.5	27.6	1423	18.3	12.5	22.1	1114	8.8	21.4	23.1	1051
150	47.3	16.1	50.0	2294	31.3	15.9	35.1	1615	23.0	15.7	27.8	1275	11.0	26.7	28.9	1210
175	57.9	19.7	61.2	2552	38.2	19.3	42.8	1801	27.9	19.0	33.7	1431	13.3	32.2	34.9	1364
200	68.9	23.4	72.8	2800	45.3	23.0	50.8	1982	32.9	22.4	39.8	1584	15.7	37.9	41.0	1516
225	80.4	27.3	84.9	3041	52.7	26.7	59.0	2158	38.0	25.9	46.0	1734	18.0	43.7	47.2	1664
250	92.1	31.3	97.3	3275	60.2	30.5	67.5	2330	43.3	29.5	52.3	1882	20.5	49.5	53.6	1811
275	-	-	-	-	67.9	34.4	76.2	2499	48.6	33.1	58.8	2028	22.9	55.5	60.1	1955
300	-	-	-	-	75.8	38.4	85.0	2665	54.0	36.8	65.3	2172	25.4	61.6	66.6	2098
325	-	-	-	-	83.8	42.5	94.0	2829	59.4	40.5	71.9	2315	28.0	67.7	73.3	2239
350	-	-	-	-	91.9	46.6	103.1	2991	65.0	44.3	78.6	2456	30.5	73.9	80.0	2380
375	-	-	-	-	100.2	50.8	112.3	3150	70.6	48.1	85.4	2596	33.1	80.2	86.7	2519
400	-	-	-	-	108.6	55.0	121.7	3308	76.2	51.9	92.2	2736	35.7	86.5	93.5	2657
425	-	-	-	-	-	-	-	-	81.9	55.8	99.1	2874	38.3	92.8	100.4	2794
450	-	-	-	-	-	-	-	-	87.6	59.7	106.0	3011	41.0	99.2	107.3	2930
475	-	-	-	-	-	-	-	-	93.4	63.7	113.0	3148	43.6	105.6	114.3	3066
500	-	-	-	-	-	-	-	-	99.2	67.6	120.0	3284	46.3	112.1	121.3	3201

97 to 120 Fibers																
Span ft	Heavy Plus <sup>2</sup>				Heavy				Medium				Light			
	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	27.9	9.3	29.4	1809	18.6	9.2	20.7	1285	14.0	9.2	16.7	1008	7.0	16.1	17.6	946
125	37.4	12.5	39.5	2105	24.9	12.3	27.7	1500	18.5	12.2	22.2	1188	9.2	21.2	23.1	1124
150	47.5	15.8	50.1	2387	31.5	15.5	35.1	1705	23.3	15.3	27.9	1362	11.5	26.5	28.9	1296
175	58.1	19.3	61.3	2658	38.4	19.0	42.8	1904	28.2	18.6	33.7	1532	13.9	31.9	34.8	1463
200	69.1	23.0	72.9	2918	45.6	22.5	50.8	2097	33.2	21.9	39.7	1698	16.3	37.5	40.9	1628
225	80.5	26.8	84.9	3171	52.9	26.1	59.0	2286	38.3	25.2	45.9	1861	18.7	43.2	47.0	1790
250	-	-	-	-	60.4	29.8	67.4	2470	43.5	28.7	52.1	2022	21.2	48.9	53.3	1949
275	-	-	-	-	68.1	33.6	75.9	2652	48.8	32.2	58.5	2181	23.8	54.8	59.7	2107
300	-	-	-	-	75.9	37.5	84.7	2831	54.2	35.7	64.9	2339	26.3	60.7	66.2	2262
325	-	-	-	-	83.9	41.4	93.5	3007	59.7	39.3	71.4	2494	28.9	66.7	72.7	2417
350	-	-	-	-	92.0	45.4	102.5	3181	65.2	42.9	78.0	2649	31.6	72.7	79.3	2570
375	-	-	-	-	-	-	-	-	70.7	46.6	84.7	2802	34.2	78.8	85.9	2723
400	-	-	-	-	-	-	-	-	76.3	50.3	91.4	2955	36.9	84.9	92.6	2874
425	-	-	-	-	-	-	-	-	81.9	54.0	98.1	3106	39.5	91.1	99.3	3024
450	-	-	-	-	-	-	-	-	87.6	57.7	104.9	3257	42.2	97.3	106.1	3174
475	-	-	-	-	-	-	-	-	-	-	-	-	45.0	103.6	112.9	3323

121 to 144 Fibers																
Span ft	Heavy Plus <sup>2</sup>				Heavy				Medium				Light			
	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	28.2	9.2	29.7	1885	18.9	9.1	21.0	1354	14.2	9.2	16.9	1073	7.2	16.3	17.8	1012
125	37.8	12.3	39.8	2196	25.3	12.2	28.0	1583	18.8	12.1	22.4	1266	9.5	21.4	23.4	1204
150	48.0	15.6	50.5	2492	31.9	15.4	35.5	1802	23.6	15.2	28.1	1454	11.8	26.7	29.2	1390
175	58.6	19.1	61.7	2776	38.9	18.7	43.2	2014	28.6	18.4	34.0	1637	14.2	32.1	35.1	1571
200	69.7	22.7	73.3	3051	46.1	22.2	51.2	2220	33.6	21.6	40.0	1817	16.7	37.7	41.2	1750
225	81.1	26.5	85.3	3317	53.5	25.8	59.3	2422	38.8	25.0	46.1	1994	19.2	43.4	47.4	1925
250	-	-	-	-	61.0	29.4	67.7	2621	44.0	28.3	52.4	2168	21.7	49.1	53.7	2098
275	-	-	-	-	68.7	33.1	76.3	2815	49.4	31.8	58.7	2340	24.3	55.0	60.1	2269
300	-	-	-	-	76.6	36.9	85.0	3007	54.8	35.2	65.1	2511	26.9	60.9	66.6	2439
325	-	-	-	-	84.5	40.7	93.8	3197	60.2	38.7	71.6	2680	29.6	66.8	73.1	2607
350	-	-	-	-	-	-	-	-	65.7	42.3	78.1	2848	32.2	72.8	79.7	2774
375	-	-	-	-	-	-	-	-	71.3	45.9	84.7	3014	34.9	78.9	86.3	2939
400	-	-	-	-	-	-	-	-	76.9	49.5	91.4	3180	37.6	85.0	93.0	3104
425	-	-	-	-	-	-	-	-	-	-	-	-	40.3	91.1	99.7	3268

145 to 216 Fibers																
Span ft	Heavy Plus <sup>2</sup>				Heavy				Medium				Light			
	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	28.3	9.2	29.7	1876	18.9	9.2	21.0	1344	14.2	9.3	17.0	1062	7.1	16.4	17.9	1004
125	37.9	12.4	39.9	2186	25.3	12.3	28.1	1570	18.9	12.3	22.5	1253	9.4	21.6	23.5	1193
150	48.1	15.7	50.6	2480	32.0	15.5	35.6	1787	23.7	15.4	28.2	1439	11.7	27.0	29.4	1377
175	58.8	19.2	61.8	2762	39.0	18.9	43.3	1997	28.6	18.6	34.1	1619	14.1	32.5	35.4	1556
200	69.9	22.8	73.5	3035	46.2	22.4	51.4	2202	33.7	21.9	40.2	1796	16.5	38.1	41.5	1732
225	81.4	26.6	85.6	3299	53.6	26.0	59.6	2401	38.9	25.3	46.4	1970	19.0	43.8	47.8	1905
250	X	X	X	X	61.2	29.7	68.0	2597	44.1	28.7	52.6	2142	21.5	49.7	54.1	2075
275	X	X	X	X	69.0	33.4	76.6	2789	49.5	32.2	59.0	2312	24.1	55.6	60.6	2244
300	X	X	X	X	76.8	37.3	85.4	2979	54.9	35.7	65.5	2480	26.7	61.6	67.1	2411
325	X	X	X	X	84.8	41.1	94.3	3166	60.4	39.2	72.0	2646	29.3	67.6	73.7	2576
350	X	X	X	X	X	X	X	X	65.9	42.8	78.6	2811	31.9	73.7	80.3	2741
375	X	X	X	X	X	X	X	X	71.5	46.5	85.3	2975	34.6	79.9	87.0	2904
400	X	X	X	X	X	X	X	X	77.1	50.1	92.0	3138	37.3	86.1	93.8	3066
425	X	X	X	X	X	X	X	X	82.8	53.8	98.7	3300	40.0	92.3	100.6	3228



217 to 288 Fibers																
Span ft	Heavy Plus <sup>2</sup>				Heavy				Medium				Light			
	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs	Vert. Sag in	Horiz. Sag in	Total Sag in	Tension lbs
100	28.3	9.0	29.7	1964	19.0	8.9	21.0	1433	14.4	8.9	16.9	1150	7.6	16.0	17.7	1086
125	37.9	12.1	39.8	2292	25.4	11.9	28.0	1678	19.0	11.7	22.4	1362	9.9	21.0	23.2	1294
150	48.0	15.3	50.4	2604	32.0	15.0	35.4	1914	23.8	14.7	28.0	1567	12.4	26.1	28.9	1498
175	58.6	18.7	61.5	2904	38.9	18.2	43.0	2143	28.7	17.7	33.8	1767	14.9	31.4	34.7	1696
200	69.6	22.2	73.1	3194	46.1	21.5	50.9	2366	33.8	20.8	39.7	1964	17.4	36.8	40.7	1892
225	-	-	-	-	53.4	24.9	58.9	2585	38.9	24.0	45.7	2159	20.0	42.2	46.7	2084
250	-	-	-	-	60.8	28.4	67.2	2800	44.1	27.2	51.8	2351	22.6	47.8	52.9	2275
275	-	-	-	-	68.5	32.0	75.6	3011	49.4	30.5	58.0	2541	25.3	53.4	59.1	2463
300	-	-	-	-	76.2	35.6	84.1	3220	54.7	33.7	64.3	2729	27.9	59.1	65.3	2650
325	-	-	-	-	-	-	-	-	60.1	37.1	70.6	2916	30.7	64.8	71.7	2836
350	-	-	-	-	-	-	-	-	65.5	40.4	77.0	3101	33.4	70.5	78.0	3020
375	-	-	-	-	-	-	-	-	71.0	43.8	83.4	3286	36.1	76.3	84.5	3204

## Loading District Specifics

	Heavy Plus <sup>2</sup>	Heavy	Medium	Light
Horizontal Wind Pressure (lb/ft <sup>2</sup> )	4	4	4	9
Radial Ice Thickness (in)	1	½	¼	0
Temperature (F)	0	0	15	30

<sup>1</sup>Reflects 1% Sag at 60° F Installation. Messenger is flooded 6.6M (7-strand ¼ inch EHS)

<sup>2</sup>Not an NESC District