

Loose Tube Figure 8 - Sag and Tension Guide

Part Number 11xxxxxM0

Initial Sag and Tension¹

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	537	6.1	450	8.1	362	10.0	275	12.0	188	14.0	100	15.9
125	615	8.4	524	10.6	434	12.8	344	15.0	253	17.2	163	19.4
150	691	10.7	598	13.2	505	15.6	413	18.0	320	20.4	227	22.8
175	766	13.2	671	15.8	576	18.4	481	21.0	386	23.6	291	26.2
200	841	15.7	744	18.5	647	21.2	550	24.0	453	26.8	356	29.5
225	915	18.3	816	21.2	717	24.1	619	27.0	520	29.9	421	32.8
250	988	20.9	888	23.9	788	27.0	688	30.0	587	33.0	487	36.1
275	1061	23.5	959	26.7	858	29.8	756	33.0	655	36.2	553	39.3
300	1133	26.2	1031	29.5	928	32.7	825	36.0	722	39.3	619	42.5
325	1206	28.9	1102	32.3	998	35.6	894	39.0	790	42.4	686	45.7
350	1278	31.6	1173	35.1	1068	38.5	963	42.0	857	45.5	752	48.9
375	1349	34.4	1243	37.9	1137	41.5	1031	45.0	925	48.5	819	52.1
400	1421	37.2	1314	40.8	1207	44.4	1100	48.0	993	51.6	886	55.2
425	1492	40.0	1384	43.6	1276	47.3	1169	51.0	1061	54.7	953	58.4
450	1563	42.8	1454	46.5	1346	50.3	1238	54.0	1129	57.7	1021	61.5
475	1634	45.6	1525	49.4	1415	53.2	1306	57.0	1197	60.8	1088	64.6
500	1704	48.4	1595	52.3	1485	56.1	1375	60.0	1265	63.9	1155	67.7
525	1775	51.2	1665	55.2	1554	59.1	1444	63.0	1333	66.9	1223	70.8
550	1846	54.1	1735	58.1	1624	62.0	1513	66.0	1401	70.0	1290	73.9
575	1916	56.9	1804	61.0	1693	65.0	1581	69.0	1470	73.0	1358	77.0
600	1986	59.8	1874	63.9	1762	67.9	1650	72.0	1538	76.1	1426	80.1
625	2056	62.7	1944	66.8	1831	70.9	1719	75.0	1606	79.1	1494	83.2
650	2127	65.6	2014	69.7	1901	73.9	1788	78.0	1674	82.1	1561	86.3
675	2197	68.4	2083	72.6	1970	76.8	1856	81.0	1743	85.2	1629	89.4
700	2267	71.3	2153	75.6	2039	79.8	1925	84.0	1811	88.2	1697	92.4

Span ft	61 to 72 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	558	6.3	470	8.2	382	10.1	294	12.0	206	13.9	117	15.8
125	641	8.6	550	10.7	458	12.9	367	15.0	276	17.1	185	19.3
150	722	11.0	628	13.3	534	15.7	441	18.0	347	20.3	253	22.7
175	802	13.5	706	16.0	610	18.5	514	21.0	418	23.5	322	26.0
200	881	16.0	783	18.7	685	21.3	588	24.0	490	26.7	392	29.3
225	960	18.6	860	21.4	761	24.2	661	27.0	561	29.8	462	32.6
250	1038	21.2	937	24.2	836	27.1	734	30.0	633	32.9	532	35.8
275	1115	23.9	1013	26.9	910	30.0	808	33.0	705	36.0	603	39.1
300	1193	26.6	1089	29.7	985	32.9	881	36.0	777	39.1	674	42.3
325	1269	29.3	1164	32.6	1060	35.8	955	39.0	850	42.2	745	45.4
350	1346	32.1	1240	35.4	1134	38.7	1028	42.0	922	45.3	816	48.6
375	1422	34.9	1315	38.2	1208	41.6	1102	45.0	995	48.4	888	51.8
400	1498	37.6	1391	41.1	1283	44.5	1175	48.0	1067	51.5	959	54.9
425	1574	40.4	1466	44.0	1357	47.5	1248	51.0	1140	54.5	1031	58.0
450	1650	43.3	1541	46.8	1431	50.4	1322	54.0	1213	57.6	1103	61.2
475	1725	46.1	1615	49.7	1505	53.4	1395	57.0	1285	60.6	1175	64.3
500	1801	48.9	1690	52.6	1579	56.3	1469	60.0	1358	63.7	1247	67.4
525	1876	51.8	1765	55.5	1653	59.3	1542	63.0	1431	66.7	1320	70.5
550	1951	54.7	1839	58.4	1727	62.2	1616	66.0	1504	69.8	1392	73.6
575	2026	57.5	1914	61.3	1801	65.2	1689	69.0	1577	72.8	1464	76.7
600	2101	60.4	1988	64.3	1875	68.1	1763	72.0	1650	75.9	1537	79.7
625	2176	63.3	2063	67.2	1949	71.1	1836	75.0	1723	78.9	1609	82.8
650	2251	66.2	2137	70.1	2023	74.1	1909	78.0	1796	81.9	1682	85.9
675	2325	69.1	2211	73.0	2097	77.0	1983	81.0	1869	85.0	1754	89.0
700	2400	72.0	2286	76.0	2171	80.0	2056	84.0	1942	88.0	1827	92.0

Span ft	73 to 96 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	595	6.6	505	8.4	416	10.2	326	12.0	237	13.8	147	15.6
125	686	8.9	593	10.9	500	13.0	408	15.0	315	17.0	223	19.1
150	775	11.4	680	13.6	585	15.8	489	18.0	394	20.2	299	22.4
175	863	13.9	766	16.3	668	18.6	571	21.0	473	23.4	376	25.7
200	951	16.5	851	19.0	752	21.5	653	24.0	553	26.5	454	29.0
225	1037	19.1	936	21.7	835	24.4	734	27.0	633	29.6	532	32.3
250	1124	21.8	1021	24.5	918	27.3	816	30.0	713	32.7	610	35.5
275	1209	24.5	1105	27.3	1001	30.2	897	33.0	793	35.8	689	38.7
300	1295	27.2	1189	30.1	1084	33.1	979	36.0	873	38.9	768	41.9
325	1379	30.0	1273	33.0	1167	36.0	1060	39.0	954	42.0	848	45.0
350	1464	32.8	1357	35.8	1249	38.9	1142	42.0	1035	45.1	927	48.2
375	1548	35.6	1440	38.7	1332	41.9	1223	45.0	1115	48.1	1007	51.3
400	1632	38.4	1523	41.6	1414	44.8	1305	48.0	1196	51.2	1087	54.4
425	1716	41.2	1606	44.5	1496	47.7	1387	51.0	1277	54.3	1167	57.5
450	1800	44.0	1689	47.4	1579	50.7	1468	54.0	1357	57.3	1247	60.6
475	1884	46.9	1772	50.3	1661	53.6	1550	57.0	1438	60.4	1327	63.7
500	1967	49.8	1855	53.2	1743	56.6	1631	60.0	1519	63.4	1407	66.8
525	2050	52.6	1938	56.1	1825	59.5	1713	63.0	1600	66.5	1488	69.9
550	2134	55.5	2021	59.0	1907	62.5	1794	66.0	1681	69.5	1568	73.0
575	2217	58.4	2103	61.9	1990	65.5	1876	69.0	1762	72.5	1649	76.1
600	2300	61.3	2186	64.9	2072	68.4	1958	72.0	1843	75.6	1729	79.1
625	2383	64.2	2268	67.8	2154	71.4	2039	75.0	1925	78.6	1810	82.2
650	2466	67.1	2351	70.7	2236	74.4	2121	78.0	2006	81.6	1891	85.3
675	2548	70.0	2433	73.7	2318	77.3	2202	81.0	2087	84.7	1971	88.3
700	2631	72.9	2515	76.6	2400	80.3	2284	84.0	2168	87.7	2052	91.4

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	636	6.8	545	8.6	454	10.3	363	12.0	271	13.7	180	15.4
125	736	9.2	641	11.2	547	13.1	453	15.0	359	16.9	265	18.8
150	834	11.7	737	13.8	641	15.9	544	18.0	447	20.1	350	22.2
175	931	14.3	832	16.5	733	18.8	634	21.0	535	23.2	436	25.5
200	1028	16.9	927	19.3	826	21.6	725	24.0	624	26.4	523	28.7
225	1124	19.6	1021	22.1	918	24.5	816	27.0	713	29.5	610	31.9
250	1219	22.3	1115	24.9	1010	27.4	906	30.0	802	32.6	698	35.1
275	1313	25.0	1208	27.7	1102	30.3	997	33.0	891	35.7	786	38.3
300	1408	27.8	1301	30.5	1194	33.3	1088	36.0	981	38.7	874	41.5
325	1502	30.6	1394	33.4	1286	36.2	1178	39.0	1070	41.8	963	44.6
350	1595	33.4	1486	36.3	1378	39.1	1269	42.0	1160	44.9	1051	47.7
375	1688	36.2	1579	39.2	1469	42.1	1359	45.0	1250	47.9	1140	50.8
400	1781	39.1	1671	42.0	1560	45.0	1450	48.0	1340	51.0	1229	54.0
425	1874	41.9	1763	44.9	1652	48.0	1541	51.0	1429	54.0	1318	57.1
450	1967	44.8	1855	47.9	1743	50.9	1631	54.0	1519	57.1	1407	60.1
475	2060	47.7	1947	50.8	1834	53.9	1722	57.0	1609	60.1	1497	63.2
500	2152	50.5	2039	53.7	1926	56.8	1813	60.0	1699	63.2	1586	66.3
525	2244	53.4	2131	56.6	2017	59.8	1903	63.0	1789	66.2	1676	69.4
550	2337	56.3	2222	59.5	2108	62.8	1994	66.0	1879	69.2	1765	72.5
575	2429	59.2	2314	62.5	2199	65.7	2084	69.0	1970	72.3	1855	75.5
600	2521	62.1	2405	65.4	2290	68.7	2175	72.0	2060	75.3	1945	78.6
625	2613	65.0	2497	68.4	2381	71.7	2266	75.0	2150	78.3	2034	81.6
650	2704	68.0	2588	71.3	2472	74.7	2356	78.0	2240	81.3	2124	84.7

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	751	7.5	656	9.0	562	10.5	467	12.0	372	13.5	278	15.0
125	877	10.0	779	11.7	682	13.3	584	15.0	486	16.7	388	18.3
150	1002	12.6	901	14.4	801	16.2	701	18.0	600	19.8	500	21.6
175	1125	15.3	1023	17.2	920	19.1	817	21.0	715	22.9	612	24.8
200	1248	18.0	1143	20.0	1039	22.0	934	24.0	829	26.0	725	28.0
225	1370	20.7	1263	22.8	1157	24.9	1051	27.0	945	29.1	838	31.2
250	1491	23.5	1383	25.7	1275	27.8	1168	30.0	1060	32.2	952	34.3
275	1611	26.3	1502	28.5	1393	30.8	1284	33.0	1175	35.2	1066	37.5
300	1731	29.1	1621	31.4	1511	33.7	1401	36.0	1291	38.3	1181	40.6
325	1851	32.0	1740	34.3	1629	36.7	1518	39.0	1407	41.3	1296	43.7
350	1971	34.8	1859	37.2	1747	39.6	1635	42.0	1523	44.4	1411	46.8
375	2090	37.7	1977	40.1	1864	42.6	1751	45.0	1639	47.4	1526	49.9
400	2209	40.6	2095	43.1	1982	45.5	1868	48.0	1755	50.5	1641	52.9
425	2328	43.5	2213	46.0	2099	48.5	1985	51.0	1871	53.5	1756	56.0
450	2446	46.4	2331	48.9	2217	51.5	2102	54.0	1987	56.5	1872	59.1
475	2565	49.3	2449	51.9	2334	54.4	2218	57.0	2103	59.6	1988	62.1
500	2683	52.2	2567	54.8	2451	57.4	2335	60.0	2219	62.6	2103	65.2

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	740	7.4	646	8.9	551	10.5	457	12.0	363	13.5	268	15.1
125	864	9.9	766	11.6	669	13.3	571	15.0	474	16.7	376	18.4
150	986	12.5	886	14.3	786	16.2	686	18.0	585	19.8	485	21.7
175	1107	15.2	1005	17.1	902	19.1	800	21.0	697	22.9	595	24.9
200	1227	17.9	1123	19.9	1018	22.0	914	24.0	810	26.0	705	28.1
225	1346	20.6	1240	22.8	1134	24.9	1028	27.0	922	29.1	816	31.2
250	1465	23.4	1357	25.6	1250	27.8	1143	30.0	1035	32.2	928	34.4
275	1583	26.2	1474	28.5	1365	30.7	1257	33.0	1148	35.3	1040	37.5
300	1700	29.0	1591	31.4	1481	33.7	1371	36.0	1261	38.3	1152	40.6
325	1818	31.9	1707	34.2	1596	36.6	1485	39.0	1375	41.4	1264	43.8
350	1935	34.7	1823	37.1	1711	39.6	1600	42.0	1488	44.4	1376	46.9
375	2052	37.6	1939	40.1	1826	42.5	1714	45.0	1601	47.5	1489	49.9
400	2168	40.5	2055	43.0	1941	45.5	1828	48.0	1715	50.5	1602	53.0
425	2284	43.4	2170	45.9	2056	48.5	1942	51.0	1828	53.5	1714	56.1
450	2401	46.3	2286	48.8	2171	51.4	2057	54.0	1942	56.6	1827	59.2
475	2517	49.2	2401	51.8	2286	54.4	2171	57.0	2056	59.6	1940	62.2
500	2632	52.1	2517	54.7	2401	57.4	2285	60.0	2169	62.6	2054	65.3
525	2748	55.0	2632	57.7	2516	60.3	2399	63.0	2283	65.7	2167	68.3

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	824	7.8	727	9.2	631	10.6	534	12.0	438	13.4	341	14.8
125	967	10.4	867	11.9	767	13.5	668	15.0	568	16.5	468	18.1
150	1108	13.0	1006	14.7	904	16.3	801	18.0	699	19.7	596	21.3
175	1249	15.7	1144	17.5	1039	19.2	935	21.0	830	22.8	726	24.5
200	1388	18.5	1281	20.3	1175	22.2	1068	24.0	962	25.8	855	27.7
225	1526	21.3	1418	23.2	1310	25.1	1202	27.0	1094	28.9	986	30.8
250	1664	24.1	1554	26.1	1445	28.0	1335	30.0	1226	32.0	1116	33.9
275	1801	26.9	1690	28.9	1580	31.0	1469	33.0	1358	35.0	1248	37.1
300	1938	29.8	1826	31.8	1714	33.9	1602	36.0	1491	38.1	1379	40.2
325	2074	32.6	1961	34.8	1849	36.9	1736	39.0	1623	41.1	1511	43.2
350	2210	35.5	2097	37.7	1983	39.8	1870	42.0	1756	44.2	1642	46.3
375	2346	38.4	2232	40.6	2117	42.8	2003	45.0	1889	47.2	1774	49.4
400	2482	41.3	2367	43.5	2252	45.8	2137	48.0	2022	50.2	1907	52.5
425	2617	44.2	2502	46.5	2386	48.7	2270	51.0	2154	53.3	2039	55.5
450	2753	47.2	2636	49.4	2520	51.7	2404	54.0	2287	56.3	2171	58.6
475	2888	50.1	2771	52.4	2654	54.7	2537	57.0	2420	59.3	2304	61.6

NESC Ice and Wind Loading Districts¹

Span ft	1 to 60 Fibers															
	Heavy Plus ²				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	26.6	10.0	28.4	1463	17.1	9.9	19.8	963	12.4	10.1	16.0	702	5.2	16.1	16.9	640
125	35.9	13.5	38.4	1694	23.1	13.5	26.8	1112	16.7	13.5	21.5	818	6.8	21.4	22.4	753
150	45.8	17.2	49.0	1911	29.5	17.2	34.2	1254	21.1	17.2	27.2	928	8.6	26.9	28.3	861
175	56.3	21.1	60.1	2118	36.3	21.1	42.0	1390	25.8	21.0	33.2	1035	10.5	32.7	34.3	966
200	67.2	25.2	71.8	2317	43.3	25.2	50.1	1522	30.7	24.9	39.5	1138	12.4	38.6	40.6	1067
225	78.6	29.4	83.9	2509	50.6	29.4	58.5	1649	35.6	28.9	45.9	1239	14.3	44.8	47.0	1166
250	90.3	33.8	96.4	2695	58.1	33.8	67.2	1773	40.8	33.1	52.5	1337	16.3	51.0	53.6	1262
275	102.4	38.3	109.3	2876	65.8	38.3	76.1	1894	46.0	37.3	59.2	1434	18.4	57.4	60.3	1357
300	114.8	43.0	122.6	3052	73.6	42.8	85.2	2013	51.3	41.7	66.1	1529	20.5	64.0	67.2	1450
325	127.6	47.8	136.2	3224	81.7	47.5	94.5	2129	56.8	46.1	73.1	1622	22.6	70.6	74.1	1542
350	-	-	-	-	89.9	52.3	104.1	2243	62.3	50.6	80.3	1715	24.8	77.3	81.2	1632
375	-	-	-	-	98.3	57.2	113.7	2355	67.9	55.1	87.5	1806	27.0	84.2	88.4	1722
400	-	-	-	-	106.8	62.2	123.6	2466	73.6	59.8	94.8	1896	29.2	91.1	95.7	1810
425	-	-	-	-	115.5	67.2	133.6	2575	79.4	64.4	102.2	1985	31.4	98.1	103.0	1897
450	-	-	-	-	124.3	72.3	143.8	2683	85.2	69.2	109.8	2073	33.7	105.2	110.4	1984
475	-	-	-	-	133.2	77.5	154.1	2790	91.1	74.0	117.3	2160	36.0	112.3	117.9	2070
500	-	-	-	-	142.2	82.7	164.5	2895	97.1	78.8	125.0	2247	38.3	119.5	125.5	2155
525	-	-	-	-	151.3	88.0	175.1	2999	103.1	83.7	132.7	2332	40.6	126.8	133.2	2240
550	-	-	-	-	160.6	93.4	185.8	3102	109.1	88.6	140.6	2418	43.0	134.2	140.9	2324
575	-	-	-	-	169.9	98.8	196.6	3205	115.2	93.5	148.4	2502	45.3	141.5	148.6	2407
600	-	-	-	-	179.3	104.3	207.5	3306	121.4	98.5	156.4	2587	47.7	149.0	156.4	2490
625	-	-	-	-	-	-	-	-	127.6	103.6	164.3	2670	50.1	156.5	164.3	2572
650	-	-	-	-	-	-	-	-	133.8	108.6	172.4	2753	52.5	164.0	172.2	2654
675	-	-	-	-	-	-	-	-	140.1	113.7	180.5	2836	55.0	171.6	180.2	2736
700	-	-	-	-	-	-	-	-	146.5	118.9	188.6	2918	57.4	179.3	188.2	2817

61 to 72 Fibers																
Span ft	Heavy Plus ²				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	26.8	9.9	28.5	1491	17.3	9.9	19.9	988	12.6	10.0	16.1	725	5.3	16.2	17.0	665
125	36.1	13.4	38.5	1727	23.4	13.4	26.9	1142	16.9	13.5	21.6	845	7.0	21.5	22.6	782
150	46.1	17.1	49.1	1949	29.8	17.1	34.3	1288	21.4	17.1	27.4	960	8.9	27.0	28.4	895
175	56.6	20.9	60.3	2161	36.6	21.0	42.2	1429	26.1	20.8	33.4	1071	10.8	32.8	34.5	1004
200	67.5	25.0	72.0	2364	43.6	25.0	50.3	1565	31.0	24.7	39.6	1179	12.7	38.8	40.8	1110
225	78.9	29.2	84.1	2561	50.9	29.2	58.7	1697	36.0	28.7	46.0	1284	14.7	44.9	47.2	1213
250	90.7	33.6	96.7	2751	58.4	33.5	67.4	1825	41.2	32.8	52.6	1387	16.8	51.2	53.8	1314
275	102.8	38.1	109.6	2936	66.2	37.9	76.3	1950	46.4	37.0	59.4	1488	18.9	57.6	60.6	1413
300	115.2	42.7	122.9	3117	74.1	42.5	85.4	2073	51.8	41.3	66.2	1587	21.0	64.1	67.4	1511
325	128.0	47.4	136.5	3294	82.2	47.1	94.7	2194	57.3	45.6	73.2	1685	23.2	70.7	74.4	1607
350	-	-	-	-	90.4	51.8	104.2	2312	62.8	50.1	80.3	1781	25.4	77.4	81.5	1702
375	-	-	-	-	98.8	56.6	113.9	2429	68.4	54.6	87.5	1876	27.6	84.2	88.6	1796
400	-	-	-	-	107.4	61.5	123.7	2543	74.2	59.1	94.8	1971	29.9	91.1	95.9	1888
425	-	-	-	-	116.0	66.5	133.7	2657	79.9	63.7	102.2	2064	32.2	98.1	103.2	1980
450	-	-	-	-	124.8	71.5	143.9	2769	85.8	68.4	109.7	2156	34.5	105.1	110.6	2071
475	-	-	-	-	133.7	76.6	154.1	2879	91.7	73.1	117.2	2248	36.8	112.3	118.1	2162
500	-	-	-	-	142.7	81.8	164.5	2989	97.6	77.8	124.9	2339	39.1	119.4	125.7	2251
525	-	-	-	-	151.9	87.0	175.0	3097	103.6	82.6	132.5	2429	41.5	126.7	133.3	2340
550	-	-	-	-	161.1	92.3	185.7	3204	109.7	87.5	140.3	2518	43.9	134.0	141.0	2428
575	-	-	-	-	170.4	97.7	196.4	3311	115.8	92.3	148.1	2607	46.3	141.3	148.7	2516
600	-	-	-	-	-	-	-	-	122.0	97.2	156.0	2695	48.7	148.7	156.5	2603
625	-	-	-	-	-	-	-	-	128.2	102.2	163.9	2783	51.2	156.2	164.4	2690
650	-	-	-	-	-	-	-	-	134.4	107.2	171.9	2870	53.6	163.7	172.2	2776
675	-	-	-	-	-	-	-	-	140.7	112.2	179.9	2957	56.1	171.2	180.2	2862
700	-	-	-	-	-	-	-	-	147.0	117.2	188.0	3044	58.6	178.8	188.1	2948

73 to 96 Fibers																
Span ft	Heavy Plus ²				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	9.8	28.9	1546	17.7	9.9	20.2	1036	12.9	10.1	16.4	769	5.5	16.5	17.4	713
125	36.6	13.3	38.9	1792	23.8	13.3	27.3	1199	17.3	13.5	21.9	897	7.3	21.9	23.1	840
150	46.7	16.9	49.6	2024	30.4	17.0	34.8	1355	21.9	17.0	27.8	1021	9.2	27.5	29.0	962
175	57.2	20.8	60.9	2245	37.3	20.8	42.7	1504	26.7	20.8	33.8	1140	11.1	33.4	35.2	1079
200	68.3	24.8	72.7	2458	44.4	24.8	50.9	1648	31.7	24.6	40.1	1256	13.1	39.4	41.6	1194
225	79.8	28.9	84.9	2663	51.8	29.0	59.3	1788	36.8	28.6	46.6	1369	15.2	45.6	48.1	1306
250	91.6	33.3	97.5	2863	59.4	33.2	68.1	1925	42.0	32.7	53.2	1480	17.3	52.0	54.8	1415
275	103.8	37.7	110.5	3056	67.2	37.6	77.0	2058	47.3	36.8	60.0	1588	19.4	58.4	61.6	1523
300	116.4	42.2	123.8	3246	75.2	42.1	86.2	2189	52.8	41.0	66.8	1696	21.6	65.0	68.5	1629
325	-	-	-	-	83.4	46.6	95.5	2317	58.3	45.3	73.9	1801	23.9	71.7	75.6	1733
350	-	-	-	-	91.7	51.3	105.1	2443	63.9	49.7	81.0	1905	26.1	78.5	82.7	1836
375	-	-	-	-	100.2	56.0	114.8	2568	69.6	54.1	88.2	2008	28.4	85.4	90.0	1938
400	-	-	-	-	108.8	60.8	124.6	2690	75.4	58.6	95.5	2110	30.7	92.3	97.3	2039
425	-	-	-	-	117.5	65.7	134.7	2811	81.2	63.1	102.9	2211	33.1	99.4	104.7	2139
450	-	-	-	-	126.4	70.7	144.8	2931	87.1	67.7	110.3	2311	35.4	106.5	112.2	2238
475	-	-	-	-	135.4	75.7	155.1	3049	93.1	72.4	117.9	2410	37.8	113.6	119.8	2336
500	-	-	-	-	144.4	80.8	165.5	3166	99.1	77.0	125.5	2509	40.2	120.9	127.4	2434
525	-	-	-	-	153.6	85.9	176.0	3282	105.1	81.7	133.2	2606	42.6	128.1	135.1	2531
550	-	-	-	-	-	-	-	-	111.2	86.5	140.9	2704	45.1	135.5	142.8	2627
575	-	-	-	-	-	-	-	-	117.4	91.3	148.7	2800	47.5	142.9	150.6	2723
600	-	-	-	-	-	-	-	-	123.6	96.1	156.5	2896	50.0	150.3	158.4	2818
625	-	-	-	-	-	-	-	-	129.8	100.9	164.4	2991	52.5	157.8	166.3	2913
650	-	-	-	-	-	-	-	-	136.1	105.8	172.4	3086	55.0	165.3	174.2	3007
675	-	-	-	-	-	-	-	-	142.4	110.7	180.4	3181	57.5	172.9	182.2	3101
700	-	-	-	-	-	-	-	-	148.7	115.7	188.4	3275	60.1	180.5	190.2	3194

97 to 120 Fibers																
Span ft	Heavy Plus ²				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	27.4	9.8	29.1	1596	17.9	9.8	20.4	1081	13.2	10.0	16.5	811	5.8	16.6	17.6	756
125	36.9	13.1	39.2	1851	24.2	13.2	27.5	1253	17.6	13.3	22.1	948	7.6	22.0	23.3	892
150	47.0	16.8	49.9	2092	30.8	16.8	35.0	1417	22.3	16.8	27.9	1080	9.6	27.6	29.2	1023
175	57.6	20.5	61.2	2322	37.7	20.6	42.9	1575	27.1	20.5	34.0	1208	11.6	33.5	35.4	1149
200	68.7	24.5	73.0	2544	44.9	24.5	51.1	1728	32.1	24.3	40.3	1332	13.7	39.5	41.8	1272
225	80.2	28.6	85.2	2758	52.3	28.5	59.6	1876	37.3	28.1	46.7	1453	15.8	45.7	48.3	1392
250	92.1	32.8	97.8	2965	59.9	32.7	68.3	2021	42.5	32.1	53.3	1572	18.0	52.0	55.0	1510
275	104.4	37.2	110.8	3167	67.8	37.0	77.2	2162	47.9	36.2	60.0	1689	20.2	58.4	61.8	1626
300	-	-	-	-	75.8	41.4	86.3	2301	53.4	40.3	66.9	1805	22.5	64.9	68.7	1741
325	-	-	-	-	84.0	45.8	95.7	2438	58.9	44.5	73.8	1918	24.8	71.6	75.7	1853
350	-	-	-	-	92.3	50.4	105.2	2572	64.6	48.7	80.9	2031	27.1	78.3	82.8	1965
375	-	-	-	-	100.8	55.0	114.8	2704	70.3	53.0	88.0	2142	29.5	85.1	90.0	2075
400	-	-	-	-	109.4	59.7	124.6	2835	76.0	57.4	95.3	2252	31.9	92.0	97.3	2184
425	-	-	-	-	118.1	64.5	134.6	2964	81.9	61.8	102.6	2361	34.3	98.9	104.7	2293
450	-	-	-	-	126.9	69.3	144.6	3091	87.8	66.3	110.0	2469	36.7	105.9	112.1	2400
475	-	-	-	-	135.9	74.2	154.8	3217	93.7	70.8	117.4	2577	39.2	113.0	119.6	2507
500	-	-	-	-	-	-	-	-	99.7	75.3	124.9	2683	41.6	120.1	127.1	2613
525	-	-	-	-	-	-	-	-	105.8	79.8	132.5	2789	44.1	127.3	134.8	2718
550	-	-	-	-	-	-	-	-	111.8	84.4	140.1	2894	46.6	134.6	142.4	2822
575	-	-	-	-	-	-	-	-	118.0	89.1	147.8	2999	49.1	141.8	150.1	2926
600	-	-	-	-	-	-	-	-	124.1	93.7	155.6	3103	51.7	149.2	157.9	3030
625	-	-	-	-	-	-	-	-	130.4	98.4	163.3	3207	54.2	156.5	165.7	3133
650	-	-	-	-	-	-	-	-	136.6	103.1	171.2	3310	56.8	163.9	173.5	3236

121 to 144 Fibers																
Span ft	Heavy Plus ²				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	9.5	29.5	1731	18.5	9.5	20.8	1205	13.8	9.7	16.8	928	6.4	16.7	17.9	874
125	37.5	12.8	39.6	2012	24.9	12.8	28.0	1402	18.3	12.9	22.4	1090	8.5	22.0	23.6	1034
150	47.7	16.3	50.4	2278	31.6	16.2	35.5	1591	23.1	16.2	28.2	1246	10.6	27.6	29.5	1189
175	58.4	19.9	61.7	2532	38.5	19.8	43.3	1772	28.0	19.7	34.3	1398	12.8	33.3	35.7	1340
200	69.6	23.7	73.5	2777	45.8	23.6	51.5	1949	33.1	23.2	40.5	1546	15.1	39.2	42.0	1487
225	81.1	27.7	85.7	3015	53.3	27.4	59.9	2120	38.3	26.9	46.8	1691	17.4	45.2	48.5	1631
250	93.0	31.7	98.3	3245	60.9	31.4	68.5	2288	43.6	30.6	53.3	1833	19.8	51.4	55.1	1773
275	-	-	-	-	68.8	35.4	77.3	2453	49.0	34.4	59.9	1974	22.2	57.6	61.8	1913
300	-	-	-	-	76.8	39.5	86.3	2615	54.5	38.2	66.6	2113	24.6	64.0	68.5	2051
325	-	-	-	-	84.9	43.7	95.5	2774	60.0	42.1	73.4	2250	27.1	70.4	75.4	2188
350	-	-	-	-	93.2	48.0	104.8	2931	65.7	46.1	80.2	2386	29.6	76.9	82.4	2323
375	-	-	-	-	101.6	52.3	114.3	3086	71.4	50.1	87.2	2521	32.1	83.4	89.4	2457
400	-	-	-	-	110.2	56.7	123.9	3240	77.1	54.1	94.2	2655	34.6	90.1	96.5	2590
425	-	-	-	-	-	-	-	-	82.9	58.2	101.3	2788	37.2	96.7	103.6	2722
450	-	-	-	-	-	-	-	-	88.7	62.3	108.4	2919	39.8	103.5	110.8	2854
475	-	-	-	-	-	-	-	-	94.6	66.4	115.6	3051	42.4	110.2	118.1	2984
500	-	-	-	-	-	-	-	-	100.5	70.6	122.8	3181	45.0	117.1	125.4	3114
525	-	-	-	-	-	-	-	-	106.5	74.8	130.1	3311	47.6	123.9	132.7	3243

145 to 216 Fibers																
Span ft	Heavy Plus ²				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	28.0	9.6	29.5	1724	18.5	9.6	20.9	1198	13.8	9.8	16.9	920	6.3	16.8	18.0	867
125	37.6	12.9	39.7	2003	24.9	12.9	28.0	1393	18.3	13.0	22.5	1080	8.4	22.2	23.7	1026
150	47.8	16.3	50.5	2268	31.6	16.4	35.6	1580	23.1	16.4	28.3	1234	10.5	27.8	29.7	1180
175	58.5	20.0	61.9	2521	38.6	20.0	43.5	1760	28.1	19.9	34.4	1384	12.6	33.6	35.9	1328
200	69.7	23.8	73.7	2765	45.9	23.7	51.7	1934	33.1	23.5	40.6	1530	14.9	39.6	42.3	1474
225	81.3	27.8	85.9	3001	53.4	27.6	60.1	2104	38.4	27.2	47.0	1673	17.2	45.7	48.8	1616
250	93.3	31.9	98.6	3230	61.1	31.6	68.8	2270	43.7	30.9	53.5	1814	19.5	51.9	55.4	1756
275	-	-	-	-	69.0	35.7	77.6	2433	49.1	34.8	60.2	1952	21.9	58.2	62.2	1894
300	-	-	-	-	77.0	39.8	86.7	2593	54.6	38.7	66.9	2089	24.3	64.6	69.0	2030
325	-	-	-	-	85.2	44.1	95.9	2751	60.2	42.6	73.8	2224	26.8	71.1	76.0	2165
350	-	-	-	-	93.5	48.4	105.3	2906	65.8	46.6	80.7	2358	29.2	77.7	83.0	2299
375	-	-	-	-	102.0	52.8	114.8	3059	71.5	50.7	87.7	2491	31.7	84.3	90.1	2431
400	-	-	-	-	110.6	57.2	124.5	3211	77.3	54.8	94.8	2623	34.3	91.1	97.3	2562
425	-	-	-	-	-	-	-	-	83.1	58.9	101.9	2753	36.8	97.8	104.5	2692
450	-	-	-	-	-	-	-	-	89.0	63.1	109.1	2883	39.4	104.6	111.8	2821
475	-	-	-	-	-	-	-	-	94.9	67.3	116.3	3012	41.9	111.5	119.1	2950
500	-	-	-	-	-	-	-	-	100.9	71.5	123.6	3140	44.5	118.4	126.5	3078
525	-	-	-	-	-	-	-	-	106.9	75.7	131.0	3268	47.2	125.4	134.0	3205

217 to 288 Fibers																
Span ft	Heavy Plus ²				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	9.4	29.8	1818	18.9	9.4	21.1	1285	14.1	9.6	17.0	1003	6.8	16.8	18.1	949
125	37.9	12.6	40.0	2115	25.3	12.6	28.2	1498	18.7	12.7	22.6	1181	8.9	22.1	23.8	1126
150	48.2	16.0	50.8	2398	32.0	16.0	35.8	1703	23.5	15.9	28.4	1353	11.1	27.6	29.8	1297
175	58.9	19.6	62.1	2668	39.1	19.5	43.6	1900	28.5	19.3	34.4	1520	13.4	33.3	35.9	1464
200	70.1	23.3	73.9	2929	46.3	23.1	51.8	2092	33.6	22.8	40.6	1684	15.8	39.2	42.2	1627
225	81.7	27.2	86.1	3181	53.8	26.8	60.1	2279	38.9	26.3	46.9	1844	18.2	45.1	48.7	1786
250	-	-	-	-	61.5	30.7	68.7	2462	44.2	29.9	53.3	2003	20.6	51.2	55.2	1944
275	-	-	-	-	69.4	34.6	77.5	2642	49.6	33.6	59.9	2159	23.1	57.4	61.9	2099
300	-	-	-	-	77.4	38.6	86.4	2819	55.1	37.3	66.5	2313	25.6	63.6	68.6	2253
325	-	-	-	-	85.5	42.6	95.5	2993	60.6	41.0	73.2	2466	28.1	69.9	75.4	2405
350	-	-	-	-	93.8	46.8	104.8	3165	66.3	44.8	80.0	2618	30.7	76.3	82.3	2556
375	-	-	-	-	-	-	-	-	71.9	48.7	86.8	2768	33.3	82.8	89.2	2706
400	-	-	-	-	-	-	-	-	77.6	52.5	93.8	2917	35.9	89.3	96.2	2855
425	-	-	-	-	-	-	-	-	83.4	56.4	100.7	3065	38.6	95.8	103.3	3003
450	-	-	-	-	-	-	-	-	89.2	60.4	107.7	3213	41.2	102.4	110.4	3150
475	-	-	-	-	-	-	-	-	-	-	-	-	43.9	109.0	117.5	3296

Loading District Specifics

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

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

²Not an NESD District