

CLEARANCE REQUIREMENTS FOR OVERHEAD SERVICE DROP CONDUCTORS
Not In Excess of 600 Volts

Service drop conductors shall not be readily accessible and when not in excess of 600 volts shall conform to the following:

A. Clearance Over Roof, Platforms or Projections (Standard 119-05 Table 34-1)

B. Clearance From Ground (Standard 119-03 Table 32-1)

C. Clearance From Building Openings (Standard 119-05 Table 34-1)

Table 34-1 provides both horizontal and vertical clearances.

D. Point of Attachment to Buildings (Standard 119-05 Paragraph C3)

The maximum attachment height should be not more than 30' above ground, unless a greater height is necessary for proper clearance.

E. Clearance Over Fuel Storage Tanks (Standard 119-05 Paragraph C5)

F. Clearance From Wells (Standard 119-05 Paragraph C7)

G. Clearance From Swimming Pools (Standard 119-05 Paragraph E)

H. Clearance From Stored Material (Standard 119-05 Paragraph C6)

I. Clearance From Grain Bins (Standard 119-05 Paragraph F)

J. Gasoline Vent Pipes (Standard 119-05 Paragraph C10)

OVERHEAD SERVICES
SAG TABLES

Sag Table for Aluminum Duplex and Triplex Conductors

#6 Duplex (M/N 101-9015)*

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	2	25	8	5	126
20	1	2	4	38	16	11	184
30	2	3	4	45	23	16	233
40	2	3	4	51	29	21	275
50	3	5	6	55	34	25	314
60	6	9	12	58	38	29	348
70	8	12	15	59	42	32	380
80	10	14	18	61	44	36	410
90	13	17	19	62	47	38	437
100	16	20	24	62	49	41	463
110	19	24	28	62	50	43	487
120	22	27	32	63	52	44	509

*See page 8 for spans greater than 120 ft

#2 Triplex (M/N 101-9350)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	2	45	23	16	177
20	2	3	4	64	41	31	250
30	4	5	7	75	54	43	306
40	6	8	10	80	63	53	350
50	10	12	13	84	69	60	386
60	14	16	18	85	74	65	416
70	18	21	23	86	77	70	440
80	24	26	28	87	79	73	460
90	30	32	35	87	81	75	477
100	37	39	42	88	82	77	492
110	45	47	50	88	83	79	504
120	53	56	58	88	84	80	514

#1/0 Triplex (M/N 101-9813)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	2	67	35	26	241
20	2	3	4	97	63	49	330
30	4	6	7	114	84	68	397
40	7	9	10	123	98	83	449
50	10	12	14	129	108	94	490
60	14	16	18	132	115	103	522
70	19	21	23	135	120	109	548
80	25	27	29	136	124	115	569
90	31	33	36	137	127	119	586
100	38	40	43	137	129	122	600
110	46	48	51	138	131	124	611
120	54	57	59	138	132	126	621

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Sag Table for Aluminum Cabled Secondary (RTS) Conductors For Services

#1/0 RTS Cable Secondary (M/N 101-9872)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	2	84	40	28	320
20	2	3	4	126	74	55	425
30	3	5	6	154	103	80	509
40	5	7	9	173	125	101	579
50	8	10	12	187	143	118	637
60	10	13	15	196	157	133	685
70	14	17	19	202	168	146	726
80	18	21	23	207	177	156	761
90	22	25	28	210	184	165	790
100	27	30	33	213	190	172	815
110	32	36	39	215	194	179	837
120	38	41	45	216	198	184	856

#4/0 RTS Cable Secondary (M/N 102-0978)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	2	2	149	75	55	542
20	2	3	4	227	140	106	682
30	4	5	7	281	193	152	794
40	6	8	9	318	236	192	884
50	8	10	13	344	269	226	955
60	11	14	16	363	296	254	1013
70	15	17	20	377	318	278	1060
80	19	22	24	387	335	298	1098
90	23	26	29	394	349	315	1129
100	28	31	34	400	360	329	1155
110	34	37	40	404	369	341	1176
120	40	43	46	408	376	351	1194

336 RTS Cable Secondary (M/N 102-1737)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	2	2	222	115	85	795
20	2	3	4	342	214	164	967
30	4	5	7	425	295	235	1106
40	6	8	10	483	361	296	1214
50	8	11	13	524	413	348	1299
60	11	14	16	554	455	392	1366
70	15	18	20	576	488	429	1418
80	19	22	25	593	515	460	1460
90	24	27	29	605	537	486	1494
100	29	32	35	615	554	508	1521
110	34	38	41	622	569	527	1543
120	40	44	47	629	581	543	1562

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Sag Table for Aluminum Quadruplex Conductors

#1/0 Quadruplex (M/N 101-9911)							
Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	2	2	94	55	43	357
20	2	3	4	139	98	79	465
30	4	6	7	167	130	109	542
40	7	9	10	184	152	132	598
50	11	12	14	194	168	150	640
60	15	17	18	201	179	163	671
70	20	22	23	205	187	174	694
80	25	27	29	208	193	181	712
90	32	34	36	210	198	187	726
100	39	41	43	211	201	192	738
110	47	49	51	213	204	196	747
120	56	58	60	213	206	199	754

#3/0 Quadruplex (M/N 102-0552)							
Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	2	2	142	83	66	502
20	2	3	4	210	148	119	630
30	4	6	7	253	197	165	719
40	7	9	10	278	231	200	780
50	11	12	14	293	255	227	823
60	15	17	18	303	272	248	853
70	20	22	24	310	284	263	875
80	26	28	29	314	293	275	891
90	32	34	36	317	299	284	903
100	40	42	43	320	304	291	913
110	48	50	52	321	308	297	920
120	56	59	60	322	311	301	926

OVERHEAD SERVICES
SAG TABLES

Sag Table for Lashed Aluminum Conductors

3 - #1/0 Lashed AL (M/N 102-0129)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	223	121	84	503
20	2	2	3	278	193	150	631
30	3	4	5	314	243	201	735
40	5	6	7	338	279	240	818
50	8	9	10	354	305	270	884
60	11	12	13	365	324	293	937
70	14	16	17	373	339	312	980
80	18	20	21	379	350	326	1016
90	23	25	26	383	358	337	1045
100	28	30	31	385	364	346	1069
110	34	36	37	388	369	353	1089
120	40	42	44	389	374	359	1105

3 - #3/0 Lashed (M/N 102-0641)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	326	187	125	613
20	2	2	3	380	272	211	744
30	3	4	5	419	331	275	854
40	5	6	7	446	374	323	943
50	8	9	10	465	405	361	1015
60	11	12	13	478	428	389	1073
70	15	16	17	487	445	411	1121
80	19	20	22	493	458	429	1160
90	24	25	27	498	468	443	1192
100	29	31	32	502	476	454	1218
110	35	37	38	504	482	463	1240
120	41	43	45	506	487	470	1259

3 - 350 Lashed (M/N 102-1940)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	581	388	258	874
20	1	2	2	629	479	376	1002
30	3	4	5	670	550	463	1120
40	5	6	7	701	648	528	1220
50	8	9	10	723	642	578	1303
60	11	12	14	740	672	617	1371
70	15	16	18	752	695	648	1427
80	20	21	22	761	713	672	1473
90	25	26	27	767	726	691	1511
100	30	32	33	773	737	706	1544
110	36	38	39	776	746	718	1570
120	43	45	46	779	753	728	1593

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SAG TABLES

Sag Table for Lashed Aluminum Conductors – Continued

3 - 350 Lashed w/ 1 - 3/0 Neutral (M/N 102-1991)							
Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	586	401	277	882
20	2	2	2	640	500	403	1016
30	3	4	5	682	573	492	1134
40	6	7	8	713	625	558	1229
50	9	10	11	734	663	606	1306
60	13	14	15	749	691	643	1367
70	17	18	19	760	712	671	1415
80	22	23	25	767	727	692	1455
90	28	29	30	773	739	709	1486
100	34	36	37	777	748	722	1512
110	41	43	44	780	756	733	1534
120	49	50	52	782	761	741	1551

2 - 750 Lashed w/ 1 - 350 Neutral (M/N 102-3756)							
Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	960	732	536	1259
20	1	2	2	999	810	658	1379
30	3	4	4	1038	883	759	1503
40	5	6	7	1071	943	838	1613
50	8	9	10	1097	990	901	1708
60	12	13	14	1117	1027	951	1789
70	15	17	18	1132	1056	990	1856
80	20	21	22	1144	1079	1022	1913
90	25	26	28	1153	1097	1047	1961
100	31	32	34	1160	1112	1068	2002
110	37	39	40	1165	1123	1085	2036
120	44	46	47	1170	1133	1099	2066

3 - 750 Lashed (M/N 102-3811)							
Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	966	745	559	1268
20	2	2	2	1012	838	698	1399
30	4	4	5	1056	917	805	1525
40	6	7	8	1089	978	886	1633
50	10	10	11	1114	1024	947	1720
60	14	14	15	1133	1058	994	1792
70	18	19	20	1146	1084	1030	1849
80	24	25	26	1155	1104	1058	1896
90	30	31	32	1163	1119	1080	1934
100	37	38	39	1168	1131	1097	1965
110	44	45	47	1172	1140	1110	1991
120	52	54	55	1175	1147	1121	2013

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Sag Table for Lashed Aluminum Conductors – Continued

3 - 750 Lashed w/ 1 - 350 Neutral (M/N 102-3870)							
Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	971	757	580	1276
20	2	2	3	1024	861	730	1413
30	4	5	5	1069	943	841	1539
40	7	7	8	1103	1004	921	1641
50	11	12	12	1126	1048	980	1722
60	15	16	17	1143	1079	1024	1784
70	21	22	23	1154	1103	1056	1834
80	27	28	29	1162	1120	1081	1872
90	34	35	36	1168	1133	1100	1903
100	41	43	44	1173	1142	1114	1928
110	50	51	52	1176	1150	1126	1948
120	59	61	62	1178	1156	1135	1965

OVERHEAD SERVICES
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Sag Table for Aluminum Duplex for Street Lighting Applications

#6 Duplex (M/N 101-9015)							
Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
130	26	31	36	63	53	46	530
140	31	36	40	63	54	47	550
150	39	44	48	57	50	45	555**
160	49	54	58	51	47	43	555**
170	60	64	68	47	44	41	555**
180	71	75	79	45	42	40	555**
190	83	87	91	43	41	39	555**
200	95	99	103	41	40	38	555**
210	108	112	116	40	39	37	555**
220	121	125	129	39	38	37	555**

** Limited to 50% of Rated Breaking Strength.

OVERHEAD SERVICES
SAG TABLES

Maintenance Only - Sag Table for Lashed Copper Conductors

3 - #1/0 Lashed CU (M/N 103-3964)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	366	269	199	534
20	2	2	3	398	327	275	622
30	4	5	5	421	368	326	694
40	7	8	9	437	396	362	751
50	11	12	13	447	415	387	794
60	16	17	17	454	428	406	827
70	21	22	23	458	438	419	852
80	27	28	29	461	444	429	872
90	34	36	37	464	450	437	888
100	42	43	45	465	453	442	901
110	51	52	53	466	456	447	911
120	61	62	63	467	458	450	919

4 - #1/0 Lashed CU (M/N 103-3964)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	415	319	245	586
20	2	3	3	449	381	329	677
30	5	5	6	473	423	383	749
40	8	9	10	488	451	420	802
50	13	14	14	498	469	444	841
60	18	19	20	504	481	462	869
70	25	25	26	508	490	474	891
80	32	33	34	510	496	483	907
90	40	41	42	512	500	489	920
100	50	51	52	513	503	494	930
110	60	61	62	514	506	498	937
120	71	72	73	514	507	500	944

3 - #4/0 Lashed CU (M/N 103-4171)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	670	488	360	951
20	2	2	3	729	599	503	1065
30	4	5	6	774	676	600	1161
40	7	8	9	804	729	667	1233
50	11	12	13	823	765	715	1286
60	16	17	18	837	790	749	1326
70	21	22	23	846	808	775	1356
80	28	29	30	852	821	793	1379
90	35	36	37	857	831	807	1396
100	43	44	45	860	838	818	1410
110	52	53	54	862	844	827	1421
120	61	63	64	863	848	833	1429

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Maintenance Only - Sag Table for Lashed Copper Conductors - Continued

3 - #4/0 Lashed CU (M/N 103-4171) w/ 1/0 Neutral (M/N 103-3964)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	678	507	386	954
20	2	3	3	743	625	536	1066
30	5	5	6	787	701	633	1153
40	8	9	10	815	751	698	1214
50	13	14	14	833	784	742	1257
60	18	19	20	844	806	772	1287
70	24	25	26	852	821	794	1309
80	32	33	34	857	832	810	1325
90	40	41	42	860	840	821	1337
100	49	50	51	862	846	830	1347
110	60	61	62	864	850	836	1354
120	71	72	73	865	853	841	1360

2 - 500 Lashed CU (M/N 103-5819) w/ 4/0 Neutral (M/N 103-4171)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	1130	916	733	1413
20	2	3	3	1186	1027	897	1513
30	5	5	6	1233	1115	1015	1603
40	8	9	10	1267	1177	1099	1672
50	13	13	14	1290	1220	1158	1724
60	18	19	20	1305	1250	1200	1762
70	24	25	26	1316	1272	1231	1790
80	32	33	33	1323	1287	1253	1811
90	40	41	42	1329	1299	1270	1828
100	49	50	51	1332	1307	1283	1840
110	59	60	61	1334	1313	1293	1850

3 - 500 Lashed CU (M/N 103-5819)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	1363	1138	938	1650
20	2	3	3	1417	1247	1101	1747
30	5	5	5	1464	1336	1226	1838
40	8	9	10	1499	1401	1315	1910
50	13	14	14	1523	1447	1379	1964
60	19	19	20	1540	1480	1424	2004
70	25	26	27	1551	1503	1458	2034
80	33	34	34	1559	1520	1482	2057
90	41	42	43	1565	1532	1501	2074
100	51	52	53	1568	1541	1515	2088

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SAG TABLES

Maintenance Only - Sag Table for Lashed Copper Conductors - Continued

3 - 500 Lashed CU (M/N 103-5819) w/ 4/0 Neutral (M/N 103-4171)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	1369	1153	962	1658
20	3	3	3	1430	1273	1139	1763
30	6	6	6	1480	1365	1266	1854
40	10	10	11	1513	1428	1352	1922
50	15	15	16	1535	1470	1411	1970
60	21	22	22	1549	1499	1452	2004
70	28	29	30	1559	1519	1481	2029
80	37	38	39	1565	1533	1502	2047
90	47	48	48	1569	1542	1517	2061

2 - 1000 Lashed CU (M/N 103-6335) w/ 500 Neutral (M/N 103-5819)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	1394	1204	1041	1676
20	4	4	4	1471	1351	1247	1783
30	8	8	8	1518	1439	1368	1855
40	13	14	14	1544	1490	1440	1899
50	21	21	22	1558	1519	1483	1927
60	30	30	31	1566	1537	1510	1944
70	40	41	41	1570	1548	1527	1956

3 - 1000 Lashed CU (M/N 103-6335)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	1	1409	1236	1088	1687
20	4	4	5	1491	1389	1300	1793
30	9	9	10	1534	1470	1413	1854
40	16	16	17	1555	1513	1474	1888
50	24	25	25	1565	1536	1508	1908
60	35	36	36	1570	1549	1528	1920

3 - 1000 Lashed CU (M/N 103-6335) w/ 500 Neutral (M/N 103-5819)

Span Length (Feet)	Initial Sag (Inches)			Initial Tension (LB)			HLT (LB)
	30°	60°	90°	30°	60°	90°	
10	1	1	2	1425	1267	1132	1700
20	5	5	5	1508	1422	1345	1802
30	10	11	11	1546	1494	1447	1854
40	18	19	19	1562	1530	1498	1881
50	28	29	29	1570	1547	1525	1896
60	41	41	42	1572	1555	1540	1905