

CONDUCTORS

- 1) In order to insure safety, certain minimum clearances must be maintained between various circuits of an overhead transmission system. Proper clearances from joint-use utilities, railroads, buildings, and other objects should always be maintained. The standard adopted by JEA is the United States Department of Agriculture/Rural Electrification Administration/REA Bulletin 1724E-200/Design Manual for High Voltage Transmission Lines/Revised September 1992.
- 2) The clearance information contained in this section has been taken from the United States Department of Agriculture/Rural Electrification Administration/REA Bulletin 1724E-200/Design Manual for High Voltage Transmission Lines/Revised September 1992. The information given by the following tables and their footnotes are intended to cover the most common situations. If site conditions arise which are not covered in this section, please refer to the United States Department of Agriculture/Rural Electrification Administration/REA Bulletin 1724E-200/Design Manual for High Voltage Transmission Lines/Revised September 1992.
- 3) Sag & Tension data is provided for the various size conductors (table 3-1) used by JEA. The most common temperatures and ruling spans were used for the tables, but other criteria can be provided if requested. The data presented in the tables below was calculated using SAG10 software program. The final tension for each conductor is calculated based on 25% RTS (Rated Tensile Strength) unless specified otherwise.

TABLE 3-1
Various Size Conductors Used by JEA

Conductor Type	Code Word	Size	JEA ITEM ID	Complete Cable Diameter (inches)	Total Weight Per 1000 ft. (lbs)	Rated Strength (lbs)	Resistance Ohms/1000 ft.		Nominal Ampacity	Design Ampacity
							DC @ 20°C	AC @ 75°C		
ACSR	Parakeet	556.5	COBSR 001	.914	716	19,800	.0307	.0376	721 (167F)	793 (185F)
	Cardinal	954	COBSR 002	1.196	1227	33,800	.0179	.0221	996 (167F)	1209 (200F)
	Falcon	1590	COBSR 003	1.545	2042	54,500	.0108	.0140	1359 (167F)	1677 (200F)
ACSS	Cardinal	954	COBSR 005	1.196	1227	26,000	.0174	.0222	1825 (200C)	
AAC	Goldenrod	954	COBAA 027	1.126	895	16,900	.0181	.0226	983 (167F)	1175 (200F)
AAAC	Elgin	652.4	COBAA 024	.927	608	21,900	.0309	.0371	729 (167F)	783 (180F)
AW	Shieldwire	3#6	COBAS 005	.349	178	10,280				

- 4) Sag & Tension Tables:
 - a. 556 ACSR @ 25% Pg. CO 6 - 21
 - b. 652 AAAC @ 25% Pg. CO 22 - 37
 - c. 954 ACSR @ 25% Pg. CO 38 - 53
 - d. 954 AAC @ 25% Pg. CO 54 - 69
 - e. 1590 ACSR @ 25% Pg. CO 70 - 85
 - f. 1590 ACSR @ 20% Pg. CO 86 - 101
 - g. 3#6 AW @ 12.5% Pg. CO 102 - 117

TABLE 4-1*
RECOMMENDED MINIMUM VERTICAL CLEARANCE OF
CONDUCTORS-TO-GROUND IN METERS (FEET)

CLEARANCE REQUIRED WHEN CONDUCTORS CROSS OVER:	<u>Nominal Line-to-Line Voltage in kV</u>				
	<u>69</u>	<u>115</u>	<u>138</u>	<u>161</u>	<u>230</u>
1. Railroad tracks	9.0 (29.6)	9.3 (30.6)	9.5 (31.1)	9.6 (31.5)	10.1 (33.0)
2. Roads, streets, alleys, parking lots or driveways	6.6 (21.6)	6.9 (22.6)	7.0 (23.1)	7.2 (23.5)	7.6 (25.0)
3. Land that may be traversed by vehicles such as cultivated, grazing, forest, orchards, etc. (B)	6.6 (21.6)	6.9 (22.6)	7.0 (23.1)	7.2 (23.5)	7.6 (25.0)
4. Spaces and ways accessible to pedestrians only (C)	5.1 (16.6)	5.4 (17.6)	5.5 (18.1)	5.7 (18.6)	6.1 (20.0)
5. Water areas not suitable for sail boating or where sail boating is not permitted (E)	5.4 (17.6)	5.7 (18.6)	5.8 (19.1)	5.9 (19.5)	6.4 (21.0)
6. Water areas suitable for sail boating including lakes, ponds, reservoirs, rivers, streams, and canals with unobstructed surface area of (D) (E)					
a. Less than 8 ha (A) (20 acres)	6.6 (21.6)	6.9 (22.6)	7.0 (23.1)	7.2 (23.5)	7.6 (25.0)
b. Over 8 to 80 ha (over 20 to 200 acres)	9.0 (29.6)	9.3 (30.6)	9.5 (31.1)	9.6 (31.5)	10.1 (33.0)
c. Over 80 to 800 ha (over 200 to 2000 acres)	10.9 (35.6)	11.2 (36.6)	11.3 (37.1)	11.5 (37.5)	11.9 (39.0)
d. Over 800 ha (over 2000 acres)	12.7 (41.6)	13.0 (42.6)	13.1 (43.1)	13.3 (43.5)	13.7 (45.0)
7. Land and water areas for rigging and launching sailboats (E)	Clearance above ground shall be 1.5 meters (5 feet) greater than in No. 6 above for the water area served by the launching site.				

*United States Department of Agriculture/Rural Electrification Administration/REA Bulletin 1724E-200/Design Manual for High Voltage Transmission Lines/Revised September 1992, Page 4-4.

TABLE 4-1 (CONT.)*
RECOMMENDED MINIMUM VERTICAL CLEARANCE OF
CONDUCTORS-TO-GROUND IN METERS (FEET)

CLEARANCE REQUIRED WHEN CONDUCTORS RUN ALONG THE TRAVELED WAY OR ADJACENT LAND AND WITHIN THE LIMITS OF THE RIGHT-OF-WAY BUT DO NOT OVERHANG:	<u>Nominal Line-to-Line Voltage in kV</u>				
	<u>69</u>	<u>115</u>	<u>138</u>	<u>161</u>	<u>230</u>
8. Roads in rural districts (F)	6.0 (19.6)	6.3 (20.6)	6.4 (21.0)	6.6 (21.6)	7.0 (23.1)
9. Streets or alleys in urban districts	6.6 (21.6)	6.9 (22.6)	7.0 (23.1)	7.2 (23.5)	7.6 (25.0)
ALTITUDE CORRECTION TO BE ADDED TO VALUES ABOVE:					
Additional meters of clearance per 300 meters of altitude above 100 meters (additional feet of clearance per 1000 feet of altitude above 3300 feet)	0.01 (0.02)	0.016 (0.05)	0.02 (0.07)	0.025 (0.08)	0.04 (0.12)
<u>NOTES:</u>					
(A) 1 hectare = 2.47 acres					
(B) These clearances are for land traversed by vehicles and equipment whose overall operating height is less than 4.3 meters (14 feet).					
(C) Areas accessible to pedestrians only are areas where equestrians, vehicles or other mobile units, exceeding 8 feet in height are prohibited by regulation or permanent terrain configurations or are not encountered or reasonably anticipated. Land subject to highway right-of-way maintenance equipment shall not be considered as being accessible to pedestrians only.					
(D) The surface area and corresponding clearance shall be based upon the uncontrolled 10 year flood level, or for controlled impoundments, upon the design high water level. The clearance over rivers, streams, and canals shall be based upon the surface area of the largest 1.6 kilometer (1 mile) long segment which includes the crossing and which has the greatest surface area. The clearance over a canal or similar waterway providing access for sailboats to a larger body of water shall be the same as that required for the larger body of water.					
(E) Where the U.S. Army Corps of Engineers has issued a crossing permit, the clearances of that permit shall govern.					
(F) Heavily traveled roads, even if they are located in rural areas, should be considered as being in urban areas.					

*United States Department of Agriculture/Rural Electrification Administration/REA Bulletin 1724E-200/Design Manual for High Voltage Transmission Lines/Revised September 1992, Page 4-5.

TABLE 4-2*
 RECOMMENDED MINIMUM CONDUCTOR CLEARANCES
 TO OBJECTS UNDER LINES, IN METERS (FEET)
 (APPLIES ONLY TO LINES WITH AUTOMATIC GROUND FAULT RELAYING)

CLEARANCES WHEN CONDUCTORS CROSS OVER:	<u>Nominal Line-to-Line Voltage in kV</u>				
	<u>69</u>	<u>115</u>	<u>138</u>	<u>161</u>	<u>230</u>
1. Buildings roofs or projections not accessible to pedestrians	4.5 (14.6)	4.8 (15.6)	4.9 (16.1)	5.0 (16.5)	5.5 (18.0)
2. Buildings roofs, balconies or projections accessible to pedestrians	5.1 (16.6)	5.4 (17.6)	5.5 (18.1)	5.6 (18.5)	6.1 (20.0)
3. Signs, chimneys, radio and television antennas, tanks and other installations not classified as buildings or bridges	3.1 (10.1)	3.4 (11.1)	3.5 (11.6)	3.7 (12.0)	4.1 (13.5)
4. Lighting supports, traffic signals or a supporting structure of another line	2.1 (7.0)	2.7 (8.6)	2.8 (9.1)	2.9 (9.5)	3.4 (11.0)
5. Swimming pools Clearance A*	8.3 (27.1)	8.6 (28.1)	8.7 (28.6)	8.8 (29.0)	9.3 (30.5)
Clearance B*	5.5 (18.1)	5.8 (19.1)	6.0 (19.6)	6.1 (20.0)	6.5 (21.5)
6. Grain bins loaded by portable augers, conveyor or elevators.	6.1 (20.1)	6.4 (21.1)	6.6 (21.6)	6.7 (22.0)	7.2 (23.5)
ALTITUDE CORRECTION TO BE ADDED TO VALUES ABOVE:					
Additional meters of clearance per 300 meters of altitude above 1000 meters (additional feet of clearance per 100 feet of altitude above 3300 feet).	0.01 (0.02)	0.016 (0.05)	0.04 (0.07)	0.025 (0.08)	0.04 (0.12)

United States Department of Agriculture/Rural Electrification Administration/REA Bulletin 1724E-200/Design Manual for High Voltage Transmission Lines/Revised September 1992, Page 4-6 & fig. 4-2.

TABLE 5-1*
RECOMMENDED MINIMUM HORIZONTAL CLEARANCE FROM
CONDUCTORS TO OBJECTS NEAR THE LINE IN METERS (FEET)

CLEARANCE TO:	<u>Nominal Line-to-Line Voltage in kV</u>				
	<u>69</u>	<u>115</u>	<u>138</u>	<u>161</u>	<u>230</u>
7. Buildings, signs, chimneys, radio and television antennas, tanks containing nonflammables, and other installations not classified as buildings or bridges.	3.0 (9.6)	3.3 (10.6)	3.4 (11.1)	3.5 (11.5)	4.0 (13.0)
8. Lighting supports, traffic signals, or supporting structures of another line.	2.0 (6.5)	2.5 (8.1)	2.6 (8.6)	2.7 (9.0)	3.2 (10.5)
9. Rail of railroad tracks.	4.5 (14.6)	4.7 (15.6)	5.0 (16.1)	5.1 (16.5)	5.5 (18.0)
10. Grain bins loaded by portable augers, conveyor or elevators.	6.2 (20.1)	6.5 (21.1)	6.6 (21.6)	6.7 (22.0)	7.2 (23.5)
ALTITUDE CORRECTION TO BE ADDED TO VALUES ABOVE:					
Additional meters of clearance per 300 meters of altitude above 1000 meters (additional feet of clearance per 100 feet of altitude above 3300 feet).	0.01 (0.02)	0.016 (0.05)	0.04 (0.07)	0.025 (0.08)	0.04 (0.12)

*United States

Department of Agriculture/Rural Electrification Administration/REA Bulletin 1724E-200/Design Manual for High Voltage Transmission Lines/Revised September 1992, Page 5-2.



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 225 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6694*	0.99	5008	1.32
30	6593**	0.69	4778	0.95
35	6405	0.71	4525	1.00
40	6215	0.73	4276	1.06
45	6023	0.75	4033	1.13
50	5829	0.78	3796	1.20
55	5633	0.81	3566	1.27
60	5436	0.83	3345	1.36
65	5237	0.87	3134	1.45
70	5037	0.90	2934	1.55
75	4836	0.94	2745	1.65
80	4635	0.98	2570	1.77
85	4433	1.02	2407	1.89
90	4232	1.07	2259	2.01
95	4032	1.13	2123	2.14
200	1393	3.26	1374	3.30

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 250 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6715*	1.21	5041	1.62
30	6593**	0.85	4767	1.18
35	6407	0.87	4520	1.24
40	6218	0.90	4278	1.31
45	6027	0.93	4042	1.39
50	5835	0.96	3813	1.47
55	5641	0.99	3592	1.56
60	5446	1.03	3380	1.66
65	5250	1.07	3178	1.76
70	5053	1.11	2988	1.88
75	4856	1.15	2809	1.99
80	4658	1.20	2642	2.12
85	4460	1.26	2489	2.25
90	4264	1.31	2347	2.39
95	4069	1.38	2218	2.53
200	1476	3.80	1456	3.85

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 275 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	6739*	1.46	5077	1.94	
30	6593**	1.03	4757	1.42	
35	6408	1.06	4516	1.50	
40	6221	1.09	4281	1.58	
45	6032	1.12	4053	1.67	
50	5842	1.16	3832	1.77	
55	5650	1.20	3620	1.87	
60	5458	1.24	3417	1.98	
65	5264	1.29	3224	2.10	
70	5070	1.34	3042	2.23	
75	4876	1.39	2872	2.36	
80	4682	1.45	2714	2.50	
85	4489	1.51	2567	2.64	
90	4297	1.58	2432	2.79	
95	4107	1.65	2308	2.94	
200	1568	4.33	1535	4.42	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 300 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	6764*	1.73	5115	2.29	
30	6593**	1.22	4748	1.70	
35	6410	1.26	4514	1.79	
40	6224	1.30	4286	1.88	
45	6037	1.34	4065	1.98	
50	5849	1.38	3853	2.09	
55	5660	1.43	3649	2.21	
60	5470	1.47	3455	2.34	
65	5279	1.53	3270	2.47	
70	5089	1.59	3097	2.61	
75	4898	1.65	2935	2.75	
80	4708	1.71	2783	2.90	
85	4519	1.79	2643	3.05	
90	4331	1.86	2514	3.21	
95	4146	1.95	2395	3.37	
200	1675	4.82	1612	5.01	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 325 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6790*	2.03	5156	2.67
30	6593**	1.44	4742	2.00
35	6411	1.48	4514	2.10
40	6228	1.52	4293	2.21
45	6043	1.57	4080	2.32
50	5857	1.62	3876	2.44
55	5670	1.67	3680	2.57
60	5483	1.73	3493	2.71
65	5295	1.79	3317	2.85
70	5108	1.85	3151	3.00
75	4921	1.92	2996	3.16
80	4734	2.00	2852	3.32
85	4550	2.08	2717	3.49
90	4367	2.17	2593	3.65
95	4187	2.26	2478	3.82
200	1778	5.33	1686	5.62

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 350 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6818*	2.34	5198	3.07
30	6593**	1.67	4737	2.32
35	6413	1.71	4516	2.43
40	6231	1.76	4303	2.55
45	6048	1.82	4097	2.68
50	5865	1.87	3900	2.82
55	5681	1.93	3712	2.96
60	5496	2.00	3533	3.11
65	5312	2.07	3364	3.26
70	5128	2.14	3206	3.43
75	4944	2.22	3057	3.59
80	4762	2.31	2918	3.76
85	4582	2.40	2789	3.94
90	4403	2.49	2669	4.12
95	4228	2.60	2558	4.29
200	1879	5.85	1757	6.26

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 375 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6847*	2.68	5242	3.50
30	6593**	1.91	4734	2.66
35	6415	1.96	4520	2.79
40	6235	2.02	4314	2.92
45	6054	2.08	4116	3.06
50	5873	2.15	3926	3.21
55	5692	2.21	3745	3.37
60	5510	2.29	3574	3.53
65	5329	2.37	3412	3.70
70	5148	2.45	3259	3.87
75	4968	2.54	3116	4.05
80	4790	2.63	2983	4.23
85	4614	2.73	2859	4.41
90	4440	2.84	2743	4.60
95	4270	2.95	2636	4.79
200	1975	6.39	1827	6.91

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 400 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6876*	3.03	5288	3.94
30	6593**	2.18	4733	3.03
35	6417	2.24	4526	3.17
40	6239	2.30	4327	3.32
45	6061	2.37	4136	3.47
50	5882	2.44	3953	3.63
55	5703	2.51	3779	3.80
60	5525	2.60	3614	3.97
65	5346	2.68	3459	4.15
70	5169	2.77	3312	4.33
75	4993	2.87	3175	4.52
80	4819	2.98	3046	4.71
85	4647	3.09	2926	4.90
90	4478	3.20	2815	5.10
95	4312	3.33	2710	5.30
200	2069	6.94	1895	7.58

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 425 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6907*	3.41	5334	4.41
30	6593**	2.46	4735	3.42
35	6419	2.52	4534	3.57
40	6243	2.59	4342	3.73
45	6067	2.67	4157	3.90
50	5891	2.75	3981	4.07
55	5715	2.83	3814	4.25
60	5539	2.92	3655	4.43
65	5364	3.02	3505	4.62
70	5191	3.12	3365	4.81
75	5018	3.23	3232	5.01
80	4848	3.34	3108	5.21
85	4680	3.46	2992	5.41
90	4515	3.59	2884	5.62
95	4353	3.72	2782	5.82
200	2160	7.51	1960	8.27

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 450 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6938*	3.80	5382	4.90
30	6593**	2.75	4738	3.83
35	6421	2.83	4544	4.00
40	6247	2.91	4358	4.17
45	6074	2.99	4180	4.34
50	5900	3.08	4010	4.53
55	5727	3.17	3849	4.72
60	5555	3.27	3696	4.91
65	5383	3.37	3552	5.11
70	5213	3.48	3416	5.32
75	5044	3.60	3288	5.52
80	4877	3.72	3169	5.73
85	4714	3.85	3056	5.94
90	4553	3.99	2951	6.16
95	4395	4.13	2852	6.37
200	2248	8.08	2025	8.98

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 475 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6970*	4.22	5430	5.42
30	6593**	3.07	4743	4.27
35	6423	3.15	4555	4.44
40	6252	3.23	4375	4.62
45	6081	3.33	4204	4.81
50	5910	3.42	4040	5.01
55	5740	3.52	3885	5.21
60	5570	3.63	3737	5.41
65	5402	3.74	3598	5.62
70	5235	3.86	3467	5.84
75	5070	3.99	3344	6.05
80	4907	4.12	3227	6.27
85	4747	4.26	3118	6.49
90	4590	4.41	3016	6.71
95	4437	4.56	2920	6.93
200	2334	8.68	2087	9.71

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 500 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7002*	4.65	5479	5.95
30	6593**	3.40	4749	4.72
35	6425	3.49	4568	4.91
40	6256	3.58	4394	5.10
45	6088	3.68	4228	5.30
50	5920	3.79	4070	5.51
55	5752	3.90	3920	5.72
60	5586	4.01	3778	5.93
65	5421	4.14	3644	6.15
70	5257	4.26	3517	6.38
75	5096	4.40	3398	6.60
80	4937	4.54	3285	6.83
85	4781	4.69	3179	7.05
90	4628	4.84	3080	7.28
95	4478	5.01	2986	7.51
200	2418	9.28	2149	10.45

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 525 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7034*	5.11	5528	6.50
30	6593**	3.75	4757	5.19
35	6427	3.84	4582	5.39
40	6261	3.95	4414	5.60
45	6095	4.05	4254	5.81
50	5930	4.17	4101	6.03
55	5765	4.29	3956	6.25
60	5602	4.41	3819	6.47
65	5440	4.54	3689	6.70
70	5280	4.68	3566	6.93
75	5122	4.82	3451	7.17
80	4966	4.98	3341	7.40
85	4814	5.13	3238	7.64
90	4665	5.30	3141	7.87
95	4519	5.47	3050	8.11
200	2499	9.90	2208	11.21

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 550 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7067*	5.58	5577	7.07
30	6593**	4.11	4767	5.69
35	6429	4.22	4597	5.90
40	6266	4.33	4435	6.12
45	6102	4.44	4280	6.34
50	5940	4.57	4133	6.57
55	5778	4.69	3992	6.80
60	5618	4.83	3860	7.03
65	5459	4.97	3734	7.27
70	5302	5.12	3615	7.51
75	5148	5.27	3503	7.75
80	4996	5.43	3396	7.99
85	4847	5.60	3296	8.23
90	4702	5.77	3202	8.48
95	4560	5.95	3113	8.72
200	2579	10.53	2267	11.99

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 575 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7100*	6.07	5627	7.66
30	6593**	4.50	4777	6.21
35	6432	4.61	4613	6.43
40	6270	4.73	4456	6.65
45	6110	4.85	4306	6.89
50	5950	4.98	4164	7.12
55	5791	5.12	4028	7.36
60	5634	5.26	3900	7.60
65	5478	5.41	3778	7.85
70	5325	5.57	3662	8.10
75	5174	5.73	3553	8.35
80	5025	5.90	3450	8.60
85	4880	6.07	3352	8.85
90	4738	6.26	3260	9.10
95	4599	6.45	3173	9.35
200	2656	11.18	2324	12.78

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 600 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7134*	6.58	5676	8.27
30	6593**	4.90	4789	6.74
35	6434	5.02	4630	6.97
40	6275	5.14	4479	7.21
45	6117	5.28	4334	7.45
50	5960	5.42	4196	7.70
55	5804	5.56	4064	7.95
60	5650	5.71	3940	8.20
65	5498	5.87	3821	8.45
70	5347	6.04	3709	8.71
75	5200	6.21	3603	8.97
80	5055	6.39	3503	9.22
85	4913	6.57	3408	9.48
90	4774	6.76	3317	9.74
95	4639	6.96	3232	10.00
200	2731	11.84	2380	13.60

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 625 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7167*	7.10	5726	8.89
30	6593**	5.31	4802	7.29
35	6436	5.44	4648	7.54
40	6280	5.58	4501	7.78
45	6125	5.72	4361	8.03
50	5970	5.87	4227	8.29
55	5817	6.02	4100	8.55
60	5666	6.18	3979	8.81
65	5517	6.35	3864	9.07
70	5370	6.52	3755	9.33
75	5225	6.70	3652	9.60
80	5083	6.89	3554	9.86
85	4945	7.08	3461	10.13
90	4809	7.28	3373	10.39
95	4678	7.49	3290	10.66
200	2804	12.51	2434	14.42

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 650 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7200*	7.65	5775	9.54
30	6593**	5.75	4816	7.87
35	6439	5.88	4667	8.12
40	6285	6.03	4525	8.38
45	6132	6.18	4389	8.64
50	5981	6.33	4259	8.90
55	5830	6.50	4136	9.17
60	5682	6.67	4018	9.43
65	5536	6.84	3907	9.70
70	5392	7.03	3801	9.98
75	5251	7.22	3700	10.25
80	5112	7.41	3604	10.52
85	4977	7.61	3514	10.79
90	4845	7.82	3428	11.06
95	4716	8.04	3346	11.34
200	2875	13.20	2488	15.26

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 675 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7234*	8.21	5824	10.20
30	6593**	6.20	4831	8.46
35	6441	6.34	4686	8.72
40	6290	6.49	4548	8.99
45	6140	6.65	4416	9.25
50	5991	6.82	4290	9.53
55	5844	6.99	4171	9.80
60	5698	7.17	4057	10.08
65	5555	7.35	3948	10.35
70	5414	7.55	3845	10.63
75	5276	7.74	3747	10.91
80	5140	7.95	3653	11.19
85	5008	8.16	3565	11.47
90	4879	8.38	3480	11.75
95	4753	8.60	3400	12.03
200	2945	13.90	2541	16.12

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 700 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7267*	8.79	5873	10.88
30	6593**	6.66	4847	9.07
35	6444	6.82	4706	9.34
40	6295	6.98	4572	9.61
45	6147	7.15	4444	9.89
50	6001	7.32	4322	10.17
55	5857	7.50	4206	10.45
60	5714	7.69	4095	10.74
65	5574	7.88	3989	11.02
70	5436	8.08	3889	11.31
75	5301	8.29	3793	11.60
80	5168	8.50	3702	11.88
85	5039	8.72	3615	12.17
90	4913	8.95	3533	12.45
95	4790	9.18	3454	12.74
200	3013	14.61	2592	16.99

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 725 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7300*	9.39	5922	11.58
30	6593**	7.15	4863	9.70
35	6446	7.31	4727	9.98
40	6300	7.48	4596	10.26
45	6155	7.66	4472	10.54
50	6011	7.84	4353	10.83
55	5870	8.03	4240	11.12
60	5730	8.23	4132	11.41
65	5593	8.43	4029	11.71
70	5458	8.64	3931	12.00
75	5325	8.85	3838	12.29
80	5196	9.07	3749	12.59
85	5069	9.30	3664	12.88
90	4946	9.53	3583	13.17
95	4826	9.77	3506	13.46
200	3079	15.34	2643	17.88

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 750 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7333*	10.00	5970	12.29
30	6593**	7.65	4879	10.34
35	6448	7.82	4747	10.63
40	6305	8.00	4621	10.92
45	6162	8.19	4500	11.22
50	6022	8.38	4385	11.51
55	5883	8.58	4274	11.81
60	5746	8.78	4169	12.11
65	5611	8.99	4069	12.41
70	5479	9.21	3973	12.71
75	5350	9.43	3882	13.01
80	5223	9.66	3795	13.31
85	5099	9.90	3712	13.61
90	4979	10.14	3633	13.90
95	4861	10.38	3557	14.20
200	3144	16.08	2693	18.79

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 775 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7366*	10.63	6018	13.02
30	6593**	8.17	4896	11.00
35	6451	8.35	4768	11.30
40	6310	8.54	4645	11.60
45	6170	8.73	4528	11.90
50	6032	8.93	4415	12.21
55	5896	9.14	4308	12.51
60	5761	9.35	4206	12.82
65	5630	9.57	4108	13.12
70	5500	9.79	4014	13.43
75	5374	10.03	3925	13.74
80	5250	10.26	3840	14.04
85	5129	10.50	3759	14.35
90	5011	10.75	3681	14.65
95	4896	11.01	3607	14.95
200	3207	16.83	2741	19.70

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 800 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7398*	11.28	6065	13.77
30	6593**	8.71	4914	11.69
35	6453	8.89	4789	11.99
40	6315	9.09	4670	12.30
45	6177	9.29	4556	12.61
50	6042	9.50	4446	12.92
55	5908	9.72	4342	13.23
60	5777	9.94	4242	13.54
65	5648	10.16	4146	13.86
70	5521	10.40	4055	14.17
75	5397	10.64	3968	14.48
80	5276	10.88	3884	14.79
85	5158	11.13	3805	15.10
90	5042	11.39	3729	15.41
95	4930	11.65	3656	15.72
200	3268	17.60	2789	20.64

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 825 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7430*	11.94	6112	14.53
30	6593**	9.26	4932	12.38
35	6456	9.45	4810	12.70
40	6319	9.66	4694	13.01
45	6185	9.87	4583	13.33
50	6052	10.09	4476	13.65
55	5921	10.31	4375	13.96
60	5792	10.54	4277	14.28
65	5666	10.78	4184	14.60
70	5542	11.02	4095	14.92
75	5420	11.26	4009	15.24
80	5302	11.52	3928	15.56
85	5186	11.77	3849	15.88
90	5073	12.04	3775	16.19
95	4963	12.30	3703	16.51
200	3328	18.37	2836	21.58

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 850 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7462*	12.63	6158	15.31
30	6593**	9.83	4950	13.10
35	6458	10.03	4832	13.42
40	6324	10.25	4719	13.74
45	6192	10.47	4610	14.07
50	6062	10.69	4507	14.39
55	5933	10.92	4407	14.72
60	5807	11.16	4312	15.04
65	5683	11.40	4221	15.37
70	5562	11.65	4134	15.69
75	5443	11.91	4050	16.02
80	5327	12.17	3970	16.34
85	5214	12.43	3894	16.66
90	5103	12.70	3820	16.99
95	4996	12.98	3750	17.31
200	3387	19.17	2882	22.55

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 875 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7467	13.37	6187*	16.15
30	6562	10.46	4950**	13.88
35	6430	10.68	4836	14.21
40	6299	10.90	4726	14.54
45	6169	11.13	4621	14.87
50	6042	11.37	4521	15.20
55	5917	11.61	4425	15.53
60	5794	11.85	4332	15.86
65	5673	12.11	4244	16.20
70	5555	12.36	4159	16.53
75	5439	12.63	4078	16.86
80	5326	12.90	4000	17.19
85	5216	13.17	3925	17.52
90	5109	13.45	3853	17.84
95	5004	13.73	3785	18.17
200	3433	20.04	2922	23.57

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 900 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7471	14.14	6214*	17.01
30	6530	11.13	4950**	14.69
35	6400	11.35	4840	15.02
40	6272	11.58	4734	15.36
45	6146	11.82	4632	15.70
50	6022	12.07	4535	16.04
55	5900	12.32	4441	16.37
60	5780	12.57	4352	16.71
65	5662	12.84	4266	17.05
70	5547	13.10	4183	17.39
75	5435	13.37	4104	17.72
80	5325	13.65	4028	18.06
85	5217	13.93	3956	18.39
90	5113	14.22	3886	18.73
95	5011	14.51	3818	19.06
200	3477	20.94	2961	24.61

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 925 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7474	14.93	6241*	17.89
30	6498	11.81	4950**	15.51
35	6371	12.05	4843	15.86
40	6246	12.29	4741	16.20
45	6123	12.54	4642	16.54
50	6002	12.79	4548	16.89
55	5882	13.05	4457	17.23
60	5766	13.31	4370	17.58
65	5651	13.58	4287	17.92
70	5539	13.86	4207	18.27
75	5429	14.14	4130	18.61
80	5322	14.42	4056	18.95
85	5218	14.71	3985	19.29
90	5117	15.01	3916	19.62
95	5018	15.30	3851	19.96
200	3520	21.85	2999	25.67

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 950 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7477	15.75	6267*	18.80
30	6465	12.52	4950**	16.37
35	6341	12.77	4847	16.72
40	6219	13.02	4747	17.07
45	6099	13.28	4652	17.42
50	5981	13.54	4561	17.77
55	5865	13.81	4473	18.12
60	5751	14.08	4388	18.47
65	5639	14.36	4307	18.82
70	5530	14.64	4229	19.17
75	5424	14.93	4154	19.51
80	5320	15.23	4082	19.86
85	5218	15.52	4013	20.20
90	5120	15.82	3946	20.55
95	5024	16.13	3882	20.89
200	3561	22.78	3036	26.76

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 556 ACSR (PARAKEET) RATED STRENGTH: 19,800 LBS.

ALLOWABLE AMPACITY: 721A (NOMINAL)

RULING SPAN – 975 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	7479	16.58	6292*	19.72	
30	6433	13.26	4950**	17.24	
35	6312	13.51	4850	17.60	
40	6192	13.77	4754	17.95	
45	6075	14.04	4661	18.31	
50	5960	14.31	4573	18.67	
55	5847	14.59	4487	19.02	
60	5736	14.87	4405	19.38	
65	5627	15.16	4326	19.73	
70	5521	15.45	4251	20.09	
75	5418	15.75	4178	20.44	
80	5317	16.05	4108	20.79	
85	5218	16.35	4040	21.14	
90	5122	16.66	3975	21.49	
95	5029	16.97	3912	21.83	
200	3600	23.74	3072	27.86	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 1000 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	7480	17.44	6316*	20.67	
30	6400	14.02	4950**	18.14	
35	6282	14.28	4853	18.50	
40	6165	14.55	4760	18.86	
45	6051	14.83	4671	19.22	
50	5939	15.11	4584	19.59	
55	5829	15.39	4502	19.95	
60	5721	15.68	4422	20.31	
65	5615	15.98	4345	20.67	
70	5512	16.28	4271	21.03	
75	5411	16.58	4200	21.39	
80	5313	16.89	4132	21.74	
85	5217	17.20	4066	22.10	
90	5124	17.52	4003	22.45	
95	5033	17.83	3941	22.80	
200	3639	24.71	3107	28.97	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 225 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	6954	0.89	5640*	1.10	
30	6864	0.56	5475**	0.71	
35	6636	0.58	5201	0.74	
40	6408	0.60	4929	0.79	
45	6181	0.63	4659	0.83	
50	5954	0.65	4393	0.88	
55	5728	0.68	4130	0.94	
60	5504	0.70	3872	1.00	
65	5280	0.73	3619	1.07	
70	5058	0.77	3373	1.15	
75	4838	0.80	3135	1.24	
80	4621	0.84	2907	1.33	
85	4405	0.88	2690	1.44	
90	4192	0.92	2487	1.56	
95	3982	0.97	2298	1.69	
200	1185	3.27	825	4.71	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 250 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	6980	1.09	5675*	1.34	
30	6870	0.70	5475**	0.87	
35	6642	0.72	5204	0.92	
40	6416	0.75	4935	0.97	
45	6189	0.77	4669	1.02	
50	5964	0.80	4407	1.09	
55	5740	0.83	4149	1.15	
60	5517	0.87	3896	1.23	
65	5295	0.90	3649	1.31	
70	5075	0.94	3410	1.40	
75	4857	0.99	3180	1.50	
80	4642	1.03	2960	1.62	
85	4429	1.08	2751	1.74	
90	4219	1.13	2556	1.87	
95	4012	1.19	2375	2.01	
200	1281	3.74	908	5.28	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 275 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7007	1.32	5711*	1.62
30	6875	0.84	5475**	1.06
35	6649	0.87	5207	1.11
40	6423	0.90	4941	1.17
45	6198	0.93	4679	1.24
50	5974	0.97	4421	1.31
55	5751	1.01	4168	1.39
60	5530	1.05	3921	1.48
65	5310	1.09	3681	1.57
70	5092	1.14	3448	1.68
75	4877	1.19	3225	1.79
80	4664	1.24	3012	1.92
85	4453	1.30	2812	2.06
90	4246	1.36	2624	2.21
95	4043	1.43	2450	2.36
200	1372	4.22	988	5.87

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 300 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7035	1.56	5750*	1.91
30	6880	1.00	5475**	1.26
35	6655	1.04	5210	1.32
40	6430	1.07	4948	1.39
45	6207	1.11	4690	1.47
50	5985	1.15	4437	1.55
55	5763	1.20	4189	1.64
60	5544	1.24	3948	1.75
65	5326	1.29	3713	1.86
70	5110	1.35	3488	1.98
75	4897	1.41	3272	2.11
80	4687	1.47	3066	2.25
85	4479	1.54	2873	2.40
90	4275	1.61	2692	2.56
95	4076	1.69	2524	2.73
200	1462	4.72	1067	6.47

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 325 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7064	1.83	5790*	2.23
30	6885	1.17	5475**	1.48
35	6661	1.21	5213	1.55
40	6438	1.26	4956	1.63
45	6215	1.30	4702	1.72
50	5995	1.35	4453	1.81
55	5775	1.40	4211	1.92
60	5558	1.45	3975	2.03
65	5342	1.51	3747	2.16
70	5128	1.58	3527	2.29
75	4918	1.64	3318	2.44
80	4710	1.72	3119	2.59
85	4505	1.79	2932	2.76
90	4305	1.88	2758	2.93
95	4108	1.97	2596	3.11
200	1548	5.23	1144	7.08

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 350 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7094	2.11	5831*	2.57
30	6889	1.36	5475**	1.71
35	6666	1.41	5217	1.80
40	6444	1.46	4963	1.89
45	6224	1.51	4714	1.99
50	6005	1.56	4470	2.10
55	5787	1.62	4233	2.22
60	5571	1.68	4003	2.34
65	5358	1.75	3781	2.48
70	5147	1.82	3568	2.63
75	4939	1.90	3365	2.79
80	4734	1.98	3172	2.96
85	4532	2.07	2992	3.14
90	4335	2.16	2823	3.32
95	4142	2.26	2666	3.52
200	1632	5.75	1220	7.70

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 375 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7124	2.41	5873*	2.92
30	6892	1.56	5475**	1.97
35	6671	1.61	5221	2.06
40	6450	1.67	4971	2.16
45	6232	1.73	4726	2.28
50	6014	1.79	4488	2.40
55	5799	1.86	4256	2.53
60	5585	1.93	4031	2.67
65	5374	2.00	3815	2.82
70	5165	2.08	3608	2.98
75	4960	2.17	3411	3.16
80	4757	2.26	3224	3.34
85	4559	2.36	3049	3.53
90	4365	2.47	2886	3.73
95	4175	2.58	2734	3.94
200	1712	6.29	1294	8.34

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 400 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7155	2.73	5916*	3.30
30	6895	1.78	5475**	2.24
35	6675	1.84	5225	2.34
40	6456	1.90	4979	2.46
45	6239	1.96	4739	2.58
50	6023	2.03	4506	2.72
55	5810	2.11	4279	2.86
60	5598	2.19	4060	3.02
65	5390	2.27	3849	3.18
70	5184	2.36	3648	3.36
75	4981	2.46	3457	3.54
80	4781	2.56	3276	3.74
85	4586	2.67	3107	3.94
90	4395	2.79	2948	4.16
95	4209	2.91	2801	4.38
200	1792	6.84	1367	8.98

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 425 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7186	3.07	5959*	3.70
30	6896	2.00	5475**	2.52
35	6678	2.07	5229	2.64
40	6461	2.14	4988	2.77
45	6246	2.21	4752	2.91
50	6032	2.29	4523	3.06
55	5820	2.37	4302	3.21
60	5611	2.46	4088	3.38
65	5405	2.56	3883	3.56
70	5201	2.66	3688	3.75
75	5001	2.76	3502	3.95
80	4805	2.88	3327	4.16
85	4613	3.00	3162	4.37
90	4425	3.12	3008	4.60
95	4242	3.26	2865	4.83
200	1868	7.41	1438	9.64

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 450 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7217	3.43	6003*	4.12
30	6897	2.25	5475**	2.83
35	6680	2.32	5233	2.96
40	6465	2.40	4996	3.10
45	6252	2.48	4765	3.25
50	6040	2.57	4542	3.41
55	5831	2.66	4325	3.58
60	5624	2.76	4117	3.76
65	5420	2.86	3917	3.96
70	5219	2.97	3727	4.16
75	5022	3.09	3547	4.37
80	4828	3.21	3377	4.59
85	4639	3.34	3217	4.82
90	4455	3.48	3067	5.05
95	4275	3.62	2927	5.30
200	1943	7.99	1508	10.30

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 475 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7248	3.80	6047*	4.56
30	6897	2.50	5475**	3.15
35	6682	2.58	5237	3.30
40	6469	2.67	5005	3.45
45	6257	2.76	4779	3.61
50	6048	2.85	4560	3.79
55	5841	2.96	4349	3.97
60	5636	3.06	4146	4.17
65	5435	3.18	3951	4.37
70	5237	3.30	3766	4.59
75	5042	3.42	3591	4.81
80	4852	3.56	3425	5.04
85	4666	3.70	3270	5.28
90	4484	3.85	3124	5.53
95	4308	4.01	2988	5.78
200	2016	8.58	1576	10.98

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 500 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7279	4.19	6092*	5.01
30	6896	2.77	5475**	3.49
35	6683	2.86	5241	3.65
40	6471	2.96	5014	3.82
45	6262	3.05	4792	3.99
50	6054	3.16	4578	4.18
55	5850	3.27	4372	4.38
60	5648	3.39	4174	4.58
65	5449	3.51	3985	4.80
70	5253	3.64	3805	5.03
75	5062	3.78	3634	5.27
80	4875	3.92	3473	5.51
85	4692	4.08	3322	5.76
90	4514	4.24	3180	6.02
95	4341	4.41	3047	6.28
200	2086	9.18	1643	11.67

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 525 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7310	4.60	6136*	5.48
30	6894	3.06	5475**	3.85
35	6683	3.16	5246	4.02
40	6473	3.26	5022	4.20
45	6266	3.37	4806	4.39
50	6061	3.48	4597	4.59
55	5858	3.60	4396	4.80
60	5659	3.73	4203	5.02
65	5463	3.86	4018	5.25
70	5270	4.00	3843	5.49
75	5081	4.15	3677	5.74
80	4897	4.31	3520	5.99
85	4717	4.47	3373	6.26
90	4542	4.64	3234	6.52
95	4373	4.82	3105	6.80
200	2155	9.80	1709	12.37

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 550 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7341	5.03	6180*	5.98
30	6892	3.36	5475**	4.23
35	6682	3.47	5250	4.41
40	6474	3.58	5031	4.60
45	6269	3.69	4820	4.81
50	6066	3.82	4615	5.02
55	5866	3.95	4419	5.24
60	5669	4.09	4231	5.48
65	5476	4.23	4051	5.72
70	5286	4.38	3881	5.97
75	5100	4.54	3719	6.23
80	4919	4.71	3566	6.50
85	4743	4.88	3423	6.77
90	4571	5.07	3288	7.05
95	4404	5.26	3161	7.33
200	2224	10.43	1775	13.09

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 575 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7371	5.48	6224*	6.49
30	6888	3.67	5475**	4.62
35	6680	3.79	5254	4.82
40	6475	3.91	5040	5.02
45	6272	4.03	4833	5.24
50	6071	4.17	4633	5.46
55	5873	4.31	4442	5.70
60	5679	4.46	4258	5.94
65	5488	4.61	4083	6.20
70	5301	4.77	3917	6.46
75	5119	4.94	3759	6.73
80	4940	5.12	3610	7.01
85	4767	5.31	3470	7.29
90	4598	5.50	3338	7.58
95	4435	5.71	3215	7.88
200	2288	11.07	1837	13.81

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 600 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7401	5.94	6268*	7.02
30	6883	4.00	5475**	5.04
35	6678	4.13	5259	5.24
40	6474	4.26	5049	5.46
45	6273	4.39	4847	5.69
50	6075	4.54	4652	5.93
55	5880	4.69	4465	6.18
60	5689	4.85	4286	6.43
65	5501	5.01	4115	6.70
70	5316	5.19	3953	6.98
75	5137	5.37	3800	7.26
80	4961	5.56	3655	7.55
85	4791	5.76	3518	7.84
90	4625	5.96	3389	8.14
95	4465	6.18	3268	8.44
200	2353	11.73	1900	14.55

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 625 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7430	6.42	6311*	7.56
30	6878	4.35	5475**	5.46
35	6674	4.48	5263	5.68
40	6473	4.62	5058	5.91
45	6274	4.76	4860	6.15
50	6079	4.92	4669	6.40
55	5886	5.08	4487	6.66
60	5697	5.25	4312	6.93
65	5512	5.42	4146	7.21
70	5330	5.61	3988	7.50
75	5154	5.80	3838	7.79
80	4981	6.00	3696	8.09
85	4814	6.21	3563	8.40
90	4651	6.43	3437	8.70
95	4494	6.65	3319	9.01
200	2415	12.40	1960	15.30

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 650 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7459	6.92	6354*	8.12
30	6871	4.71	5475**	5.91
35	6670	4.85	5268	6.14
40	6471	5.00	5067	6.39
45	6275	5.16	4873	6.64
50	6081	5.32	4688	6.90
55	5891	5.49	4509	7.18
60	5705	5.67	4339	7.46
65	5523	5.86	4177	7.75
70	5344	6.05	4023	8.05
75	5170	6.26	3877	8.35
80	5001	6.47	3739	8.66
85	4837	6.69	3608	8.97
90	4677	6.92	3485	9.29
95	4523	7.16	3369	9.61
200	2477	13.09	2020	16.06

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 675 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7488	7.43	6396*	8.70
30	6864	5.08	5475**	6.37
35	6665	5.23	5272	6.62
40	6468	5.39	5075	6.87
45	6274	5.56	4886	7.14
50	6083	5.73	4705	7.41
55	5896	5.91	4531	7.70
60	5712	6.10	4365	7.99
65	5533	6.30	4206	8.29
70	5357	6.51	4056	8.60
75	5186	6.72	3913	8.92
80	5020	6.95	3778	9.23
85	4858	7.18	3651	9.56
90	4702	7.42	3530	9.88
95	4550	7.66	3417	10.21
200	2535	13.78	2078	16.83

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 700 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7516	7.96	6438*	9.30
30	6856	5.47	5475**	6.85
35	6659	5.64	5276	7.11
40	6464	5.80	5084	7.38
45	6273	5.98	4900	7.66
50	6085	6.17	4722	7.95
55	5900	6.36	4553	8.25
60	5719	6.56	4390	8.55
65	5543	6.77	4236	8.86
70	5370	6.99	4089	9.18
75	5202	7.21	3950	9.51
80	5038	7.45	3818	9.83
85	4880	7.69	3694	10.17
90	4726	7.94	3576	10.50
95	4578	8.20	3465	10.84
200	2594	14.49	2136	17.62

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 725 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7544	8.51	6480*	9.91
30	6847	5.87	5475**	7.35
35	6652	6.05	5280	7.62
40	6460	6.23	5093	7.90
45	6271	6.41	4912	8.19
50	6086	6.61	4739	8.49
55	5904	6.81	4573	8.80
60	5725	7.03	4415	9.12
65	5551	7.25	4264	9.44
70	5382	7.48	4121	9.77
75	5216	7.71	3985	10.10
80	5056	7.96	3856	10.44
85	4900	8.21	3734	10.78
90	4749	8.47	3618	11.13
95	4604	8.74	3509	11.47
200	2649	15.21	2192	18.41

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 750 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7571	9.08	6520*	10.54
30	6837	6.30	5475**	7.87
35	6644	6.48	5285	8.15
40	6455	6.67	5101	8.45
45	6269	6.87	4925	8.75
50	6086	7.08	4756	9.06
55	5906	7.29	4594	9.38
60	5731	7.52	4440	9.71
65	5560	7.75	4293	10.04
70	5393	7.99	4153	10.38
75	5231	8.24	4020	10.72
80	5073	8.49	3894	11.07
85	4920	8.76	3774	11.42
90	4773	9.03	3662	11.78
95	4630	9.31	3555	12.13
200	2706	15.95	2248	19.22

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 775 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	7598	9.65	6561*	11.18	
30	6827	6.73	5475**	8.40	
35	6636	6.93	5289	8.69	
40	6449	7.13	5109	9.00	
45	6266	7.34	4937	9.31	
50	6085	7.55	4772	9.64	
55	5909	7.78	4614	9.97	
60	5736	8.01	4463	10.30	
65	5568	8.26	4319	10.65	
70	5404	8.51	4183	11.00	
75	5244	8.77	4053	11.35	
80	5089	9.03	3929	11.71	
85	4939	9.31	3813	12.07	
90	4794	9.59	3702	12.43	
95	4654	9.88	3597	12.79	
200	2758	16.70	2301	20.04	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 800 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	7623	10.26	6600*	11.85	
30	6815	7.19	5475**	8.95	
35	6627	7.40	5293	9.26	
40	6443	7.61	5118	9.58	
45	6262	7.83	4949	9.91	
50	6084	8.06	4788	10.24	
55	5910	8.29	4634	10.58	
60	5741	8.54	4487	10.93	
65	5575	8.79	4346	11.28	
70	5414	9.06	4213	11.64	
75	5257	9.33	4086	12.00	
80	5106	9.60	3965	12.37	
85	4958	9.89	3851	12.74	
90	4816	10.18	3743	13.11	
95	4679	10.48	3640	13.48	
200	2812	17.47	2355	20.88	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 825 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7649	10.87	6639*	12.53
30	6803	7.66	5475**	9.52
35	6618	7.87	5297	9.84
40	6436	8.09	5126	10.17
45	6258	8.33	4961	10.50
50	6083	8.56	4804	10.85
55	5912	8.81	4653	11.20
60	5745	9.07	4509	11.56
65	5582	9.33	4372	11.92
70	5423	9.61	4241	12.29
75	5270	9.89	4117	12.66
80	5120	10.18	3999	13.04
85	4976	10.47	3887	13.41
90	4836	10.78	3781	13.79
95	4702	11.08	3680	14.17
200	2862	18.24	2406	21.72

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 850 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7673	11.50	6677*	13.22
30	6791	8.15	5475**	10.11
35	6608	8.37	5301	10.44
40	6429	8.61	5134	10.78
45	6253	8.85	4973	11.13
50	6081	9.10	4819	11.49
55	5912	9.36	4672	11.85
60	5748	9.63	4532	12.22
65	5588	9.90	4398	12.59
70	5433	10.19	4270	12.97
75	5282	10.48	4149	13.35
80	5135	10.78	4033	13.73
85	4994	11.09	3924	14.12
90	4857	11.40	3820	14.50
95	4725	11.72	3721	14.89
200	2913	19.03	2458	22.59

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 875 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7698	12.15	6715*	13.93
30	6778	8.65	5475**	10.71
35	6598	8.88	5305	11.05
40	6421	9.13	5141	11.40
45	6248	9.38	4984	11.76
50	6078	9.64	4834	12.13
55	5913	9.91	4690	12.50
60	5751	10.19	4553	12.88
65	5594	10.48	4422	13.26
70	5441	10.77	4297	13.65
75	5293	11.08	4178	14.04
80	5149	11.38	4065	14.43
85	5010	11.70	3958	14.82
90	4876	12.02	3856	15.22
95	4746	12.35	3758	15.61
200	2961	19.83	2507	23.45

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 900 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7721	12.82	6752*	14.66
30	6764	9.17	5475**	11.33
35	6586	9.42	5309	11.69
40	6412	9.68	5149	12.05
45	6242	9.94	4996	12.42
50	6075	10.21	4849	12.80
55	5912	10.50	4709	13.18
60	5754	10.78	4575	13.57
65	5599	11.08	4447	13.96
70	5449	11.39	4325	14.36
75	5304	11.70	4208	14.75
80	5163	12.02	4098	15.15
85	5027	12.35	3992	15.56
90	4895	12.68	3892	15.96
95	4768	13.02	3797	16.36
200	3010	20.66	2557	24.34

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 925 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7745	13.50	6789*	15.40
30	6750	9.70	5475**	11.97
35	6575	9.96	5312	12.33
40	6404	10.23	5156	12.71
45	6236	10.50	5007	13.09
50	6072	10.79	4863	13.47
55	5912	11.08	4726	13.87
60	5756	11.38	4595	14.26
65	5604	11.69	4470	14.66
70	5457	12.01	4350	15.07
75	5314	12.33	4236	15.47
80	5176	12.66	4128	15.88
85	5042	13.00	4025	16.29
90	4913	13.34	3926	16.70
95	4788	13.69	3833	17.11
200	3056	21.48	2604	25.23

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 950 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	7767	14.20	6824*	16.17
30	6735	10.26	5475**	12.63
35	6563	10.53	5316	13.01
40	6394	10.81	5164	13.39
45	6229	11.10	5018	13.78
50	6068	11.39	4878	14.18
55	5911	11.70	4744	14.58
60	5758	12.01	4615	14.99
65	5609	12.33	4493	15.40
70	5464	12.66	4376	15.81
75	5324	12.99	4265	16.22
80	5188	13.33	4159	16.64
85	5057	13.68	4058	17.06
90	4931	14.03	3961	17.47
95	4808	14.39	3869	17.89
200	3103	22.33	2653	26.15

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 652 AAAC (ELGIN)

RATED STRENGTH: 21,900 LBS.

ALLOWABLE AMPACITY: 729A (NOMINAL)

RULING SPAN – 975 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	7790	14.91	6859*	16.94	
30	6721	10.83	5475**	13.30	
35	6551	11.11	5320	13.68	
40	6385	11.40	5171	14.08	
45	6222	11.70	5028	14.48	
50	6064	12.00	4891	14.89	
55	5909	12.32	4760	15.30	
60	5759	12.64	4635	15.71	
65	5613	12.97	4515	16.13	
70	5471	13.31	4400	16.55	
75	5333	13.65	4291	16.97	
80	5200	14.00	4187	17.40	
85	5071	14.36	4088	17.82	
90	4947	14.72	3993	18.25	
95	4827	15.09	3903	18.67	
200	3146	23.19	2698	27.07	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 1000 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	7811	15.65	6893*	17.74	
30	6705	11.42	5475**	14.00	
35	6538	11.72	5323	14.40	
40	6375	12.02	5178	14.80	
45	6215	12.33	5038	15.21	
50	6059	12.64	4905	15.63	
55	5907	12.97	4777	16.05	
60	5760	13.30	4654	16.47	
65	5616	13.64	4537	16.90	
70	5477	13.99	4425	17.33	
75	5342	14.34	4318	17.76	
80	5212	14.70	4216	18.19	
85	5086	15.07	4119	18.62	
90	4964	15.44	4026	19.05	
95	4846	15.82	3937	19.48	
200	3191	24.07	2744	28.01	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 225 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10575	0.94	8652*	1.15
30	10477	0.74	8450**	0.92
35	10210	0.76	8054	0.97
40	9941	0.78	7664	1.01
45	9670	0.80	7280	1.07
50	9397	0.83	6902	1.13
55	9123	0.85	6533	1.19
60	8846	0.88	6174	1.26
65	8569	0.91	5825	1.34
70	8289	0.94	5489	1.42
75	8009	0.97	5167	1.51
80	7729	1.01	4861	1.60
85	7448	1.04	4571	1.70
90	7167	1.09	4300	1.81
95	6887	1.13	4047	1.92
200	2557	3.04	2407	3.23

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 250 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10614	1.16	8693*	1.41
30	10496	0.91	8450*	1.14
35	10231	0.94	8062	1.19
40	9964	0.96	7680	1.25
45	9695	0.99	7305	1.31
50	9425	1.02	6938	1.38
55	9153	1.05	6580	1.46
60	8880	1.08	6232	1.54
65	8606	1.12	5896	1.63
70	8331	1.15	5573	1.72
75	8055	1.19	5265	1.82
80	7779	1.23	4972	1.93
85	7503	1.28	4696	2.05
90	7228	1.33	4437	2.16
95	6954	1.38	4196	2.29
200	2753	3.49	2546	3.78

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 275 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10654	1.39	8736*	1.70
30	10513	1.11	8450**	1.38
35	10250	1.13	8070	1.44
40	9986	1.16	7697	1.51
45	9720	1.20	7331	1.58
50	9452	1.23	6975	1.67
55	9183	1.27	6628	1.75
60	8914	1.30	6292	1.85
65	8643	1.34	5968	1.95
70	8372	1.39	5658	2.05
75	8100	1.43	5362	2.17
80	7829	1.48	5082	2.29
85	7559	1.54	4818	2.41
90	7289	1.59	4571	2.54
95	7021	1.66	4340	2.68
200	2941	3.95	2680	4.34

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 300 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10693	1.65	8780*	2.01
30	10528	1.31	8450**	1.64
35	10268	1.35	8078	1.71
40	10006	1.38	7714	1.79
45	9742	1.42	7359	1.88
50	9478	1.46	7012	1.97
55	9212	1.50	6677	2.07
60	8946	1.55	6352	2.18
65	8679	1.59	6041	2.29
70	8412	1.64	5742	2.41
75	8145	1.70	5459	2.53
80	7879	1.76	5190	2.67
85	7614	1.82	4937	2.80
90	7350	1.88	4700	2.94
95	7088	1.95	4478	3.09
200	3121	4.44	2809	4.93

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 325 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10732	1.93	8826*	2.35
30	10541	1.54	8450**	1.92
35	10283	1.58	8087	2.01
40	10024	1.62	7732	2.10
45	9763	1.66	7387	2.20
50	9502	1.71	7051	2.30
55	9240	1.76	6726	2.41
60	8977	1.81	6413	2.53
65	8714	1.86	6113	2.66
70	8452	1.92	5826	2.79
75	8189	1.98	5553	2.92
80	7928	2.05	5296	3.07
85	7668	2.12	5053	3.21
90	7410	2.19	4825	3.37
95	7154	2.27	4611	3.52
200	3293	4.93	2933	5.54

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 350 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10770	2.23	8872*	2.71
30	10552	1.78	8450**	2.23
35	10296	1.83	8096	2.33
40	10040	1.87	7751	2.43
45	9782	1.92	7415	2.54
50	9524	1.98	7090	2.66
55	9266	2.03	6776	2.78
60	9007	2.09	6473	2.91
65	8748	2.15	6184	3.04
70	8490	2.22	5908	3.19
75	8232	2.29	5646	3.33
80	7976	2.36	5398	3.49
85	7721	2.44	5164	3.65
90	7469	2.52	4945	3.81
95	7219	2.61	4739	3.97
200	3459	5.45	3053	6.17

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 375 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10806	2.56	8919*	3.10
30	10560	2.05	8450**	2.56
35	10307	2.10	8105	2.67
40	10053	2.15	7770	2.78
45	9799	2.21	7444	2.90
50	9544	2.26	7129	3.03
55	9289	2.33	6825	3.17
60	9034	2.39	6533	3.31
65	8780	2.46	6254	3.46
70	8526	2.53	5989	3.61
75	8273	2.61	5736	3.77
80	8022	2.69	5498	3.93
85	7773	2.78	5273	4.10
90	7526	2.87	5061	4.27
95	7282	2.97	4862	4.45
200	3617	5.98	3170	6.83

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 400 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10841	2.90	8966*	3.51
30	10565	2.33	8450**	2.91
35	10315	2.38	8114	3.03
40	10065	2.44	7788	3.16
45	9814	2.51	7472	3.29
50	9562	2.57	7167	3.43
55	9311	2.64	6874	3.58
60	9060	2.71	6592	3.73
65	8810	2.79	6323	3.89
70	8560	2.87	6067	4.05
75	8312	2.96	5824	4.22
80	8066	3.05	5594	4.40
85	7823	3.14	5377	4.57
90	7582	3.24	5172	4.76
95	7344	3.35	4980	4.94
200	3770	6.53	3283	7.50

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 425 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10874	3.26	9013*	3.94
30	10568	2.63	8450**	3.28
35	10321	2.69	8124	3.42
40	10074	2.76	7807	3.56
45	9826	2.82	7501	3.70
50	9578	2.90	7206	3.85
55	9330	2.97	6922	4.01
60	9083	3.06	6650	4.17
65	8837	3.14	6391	4.34
70	8593	3.23	6144	4.52
75	8350	3.32	5909	4.70
80	8109	3.42	5687	4.88
85	7870	3.53	5478	5.07
90	7635	3.64	5280	5.26
95	7403	3.75	5094	5.45
200	3917	7.10	3392	8.20

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 450 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10906	3.65	9060*	4.39
30	10568	2.94	8450**	3.68
35	10324	3.01	8133	3.83
40	10080	3.09	7826	3.98
45	9835	3.16	7529	4.13
50	9591	3.24	7244	4.30
55	9348	3.33	6969	4.47
60	9105	3.42	6707	4.64
65	8863	3.51	6457	4.82
70	8623	3.61	6218	5.01
75	8385	3.71	5992	5.20
80	8149	3.82	5777	5.39
85	7916	3.93	5575	5.59
90	7686	4.05	5383	5.78
95	7460	4.17	5203	5.98
200	4058	7.68	3498	8.91

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 475 FEET				
		INITIAL		FINAL
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10935	4.05	9106*	4.87
30	10566	3.28	8450**	4.10
35	10325	3.36	8142	4.26
40	10083	3.44	7844	4.42
45	9843	3.52	7557	4.59
50	9602	3.61	7281	4.76
55	9362	3.70	7016	4.94
60	9124	3.80	6762	5.13
65	8887	3.90	6520	5.32
70	8651	4.01	6290	5.51
75	8418	4.12	6072	5.71
80	8187	4.24	5864	5.92
85	7959	4.36	5668	6.12
90	7735	4.48	5483	6.33
95	7514	4.62	5308	6.54
200	4194	8.28	3601	9.65

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 500 FEET				
		INITIAL		FINAL
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10963	4.48	9152*	5.37
30	10560	3.64	8450**	4.55
35	10322	3.72	8151	4.71
40	10085	3.81	7863	4.89
45	9847	3.90	7585	5.07
50	9611	4.00	7317	5.25
55	9375	4.10	7061	5.44
60	9141	4.20	6816	5.64
65	8908	4.31	6583	5.84
70	8677	4.43	6360	6.04
75	8449	4.55	6149	6.25
80	8223	4.67	5948	6.46
85	8000	4.80	5758	6.68
90	7781	4.94	5578	6.89
95	7566	5.08	5408	7.11
200	4324	8.90	3701	10.40

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 525 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	10989	4.93	9198*	5.89
30	10552	4.01	8450**	5.01
35	10318	4.11	8160	5.19
40	10083	4.20	7881	5.38
45	9850	4.30	7612	5.57
50	9617	4.40	7353	5.76
55	9385	4.51	7105	5.96
60	9155	4.63	6869	6.17
65	8927	4.75	6643	6.38
70	8701	4.87	6428	6.59
75	8477	5.00	6223	6.81
80	8257	5.13	6029	7.03
85	8039	5.27	5845	7.25
90	7826	5.41	5670	7.48
95	7616	5.56	5505	7.70
200	4450	9.53	3798	11.18

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 550 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11013	5.40	9242*	6.43
30	10542	4.41	8450**	5.50
35	10311	4.51	8169	5.69
40	10080	4.61	7898	5.89
45	9850	4.72	7638	6.09
50	9621	4.83	7388	6.29
55	9394	4.95	7148	6.51
60	9168	5.07	6919	6.72
65	8944	5.20	6701	6.94
70	8723	5.33	6493	7.16
75	8504	5.47	6295	7.39
80	8288	5.61	6107	7.62
85	8076	5.76	5928	7.85
90	7867	5.91	5759	8.08
95	7663	6.07	5598	8.31
200	4570	10.19	3892	11.97

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 575 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11035	5.89	9286*	7.00
30	10529	4.83	8450**	6.01
35	10301	4.93	8178	6.21
40	10074	5.04	7916	6.42
45	9848	5.16	7664	6.63
50	9623	5.28	7422	6.85
55	9400	5.41	7190	7.07
60	9178	5.54	6969	7.29
65	8959	5.67	6757	7.52
70	8742	5.81	6556	7.75
75	8529	5.96	6364	7.99
80	8318	6.11	6182	8.23
85	8111	6.27	6008	8.46
90	7907	6.43	5844	8.70
95	7708	6.59	5687	8.94
200	4687	10.86	3984	12.78

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 600 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11055	6.40	9328*	7.59
30	10514	5.26	8450**	6.55
35	10289	5.38	8186	6.76
40	10066	5.50	7932	6.98
45	9844	5.62	7689	7.20
50	9623	5.75	7455	7.42
55	9404	5.88	7231	7.66
60	9187	6.02	7016	7.89
65	8972	6.17	6812	8.13
70	8760	6.32	6617	8.37
75	8551	6.47	6431	8.61
80	8345	6.63	6254	8.85
85	8143	6.80	6086	9.10
90	7944	6.97	5926	9.35
95	7750	7.14	5774	9.59
200	4799	11.55	4073	13.62

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 625 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11074	6.93	9370*	8.20
30	10497	5.72	8450**	7.11
35	10276	5.84	8195	7.33
40	10056	5.97	7949	7.56
45	9838	6.10	7713	7.79
50	9621	6.24	7487	8.02
55	9406	6.38	7270	8.26
60	9193	6.53	7063	8.51
65	8983	6.68	6865	8.75
70	8776	6.84	6676	9.00
75	8572	7.01	6495	9.25
80	8371	7.17	6324	9.50
85	8173	7.35	6160	9.75
90	7980	7.53	6004	10.01
95	7790	7.71	5856	10.26
200	4907	12.26	4160	14.47

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 650 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11091	7.49	9411*	8.83
30	10477	6.20	8450**	7.69
35	10260	6.33	8203	7.92
40	10044	6.47	7965	8.16
45	9830	6.61	7737	8.40
50	9617	6.75	7518	8.64
55	9406	6.90	7308	8.89
60	9198	7.06	7107	9.14
65	8993	7.22	6915	9.40
70	8790	7.39	6732	9.65
75	8590	7.56	6557	9.91
80	8394	7.74	6391	10.17
85	8202	7.92	6232	10.43
90	8013	8.11	6080	10.69
95	7828	8.30	5936	10.95
200	5011	12.98	4244	15.34

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 675 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11106	8.06	9450*	9.48
30	10456	6.70	8450**	8.29
35	10242	6.84	8211	8.53
40	10030	6.98	7980	8.78
45	9820	7.13	7759	9.03
50	9611	7.29	7547	9.28
55	9405	7.45	7344	9.54
60	9201	7.61	7150	9.80
65	9000	7.78	6964	10.06
70	8802	7.96	6787	10.33
75	8607	8.14	6617	10.59
80	8416	8.32	6455	10.86
85	8228	8.51	6301	11.13
90	8044	8.71	6153	11.39
95	7864	8.91	6013	11.66
200	5111	13.73	4326	16.23

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 700 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11120	8.66	9489*	10.16
30	10433	7.22	8450**	8.92
35	10223	7.37	8218	9.17
40	10015	7.52	7995	9.42
45	9809	7.68	7782	9.68
50	9604	7.84	7576	9.95
55	9402	8.01	7380	10.21
60	9203	8.19	7192	10.48
65	9007	8.36	7011	10.75
70	8813	8.55	6839	11.02
75	8623	8.74	6675	11.29
80	8436	8.93	6517	11.57
85	8253	9.13	6367	11.84
90	8073	9.33	6223	12.12
95	7898	9.54	6086	12.39
200	5207	14.49	4407	17.14

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 725 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11133	9.28	9526*	10.85
30	10409	7.76	8450**	9.56
35	10203	7.92	8226	9.83
40	9998	8.08	8010	10.09
45	9796	8.25	7803	10.36
50	9596	8.42	7604	10.63
55	9398	8.60	7414	10.90
60	9203	8.78	7232	11.18
65	9011	8.97	7057	11.46
70	8822	9.16	6890	11.74
75	8637	9.36	6730	12.02
80	8454	9.56	6577	12.30
85	8276	9.77	6431	12.58
90	8101	9.98	6291	12.86
95	7930	10.19	6157	13.14
200	5300	15.27	4485	18.07

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 750 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11144	9.93	9563*	11.57
30	10383	8.33	8450**	10.24
35	10180	8.49	8233	10.51
40	9980	8.66	8024	10.78
45	9782	8.84	7824	11.06
50	9586	9.02	7631	11.34
55	9393	9.21	7447	11.62
60	9202	9.40	7270	11.90
65	9015	9.59	7101	12.19
70	8830	9.80	6938	12.47
75	8649	10.00	6783	12.76
80	8471	10.21	6635	13.05
85	8297	10.43	6492	13.33
90	8127	10.64	6356	13.62
95	7960	10.87	6226	13.91
200	5390	16.07	4561	19.01

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 775 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11153	10.59	9598*	12.31
30	10355	8.92	8450**	10.93
35	10157	9.09	8240	11.21
40	9961	9.27	8038	11.49
45	9767	9.46	7844	11.78
50	9575	9.64	7657	12.07
55	9386	9.84	7479	12.35
60	9200	10.04	7307	12.65
65	9017	10.24	7143	12.94
70	8836	10.45	6985	13.23
75	8660	10.67	6834	13.52
80	8486	10.88	6690	13.82
85	8317	11.11	6551	14.11
90	8151	11.33	6419	14.40
95	7989	11.56	6291	14.69
200	5476	16.89	4635	19.98

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 800 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11162	11.28	9632*	13.07
30	10327	9.53	8450**	11.65
35	10133	9.71	8247	11.94
40	9940	9.90	8051	12.23
45	9750	10.09	7863	12.52
50	9563	10.29	7683	12.82
55	9378	10.49	7509	13.11
60	9196	10.70	7343	13.41
65	9017	10.91	7184	13.71
70	8842	11.13	7031	14.01
75	8669	11.35	6884	14.31
80	8500	11.58	6743	14.61
85	8335	11.81	6608	14.91
90	8173	12.04	6479	15.20
95	8015	12.28	6355	15.50
200	5560	17.73	4708	20.96

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 825 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11169	11.98	9666*	13.85
30	10298	10.16	8450**	12.39
35	10107	10.35	8253	12.69
40	9919	10.55	8064	12.98
45	9733	10.75	7882	13.28
50	9550	10.96	7707	13.59
55	9369	11.17	7539	13.89
60	9192	11.39	7378	14.20
65	9017	11.61	7223	14.50
70	8846	11.83	7074	14.81
75	8678	12.06	6931	15.11
80	8513	12.30	6795	15.42
85	8352	12.53	6663	15.72
90	8194	12.78	6537	16.03
95	8041	13.02	6416	16.33
200	5640	18.59	4778	21.97

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 850 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11175	12.72	9698*	14.66
30	10267	10.82	8450**	13.15
35	10081	11.02	8259	13.46
40	9897	11.23	8076	13.76
45	9715	11.44	7900	14.07
50	9536	11.65	7730	14.38
55	9360	11.87	7567	14.69
60	9186	12.10	7411	15.00
65	9016	12.32	7260	15.31
70	8849	12.56	7116	15.63
75	8685	12.80	6977	15.94
80	8525	13.04	6844	16.25
85	8368	13.28	6716	16.56
90	8214	13.53	6593	16.87
95	8064	13.78	6475	17.18
200	5718	19.47	4847	22.99

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 875 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11180	13.47	9729*	15.48
30	10236	11.50	8450**	13.94
35	10054	11.71	8265	14.25
40	9874	11.92	8088	14.56
45	9696	12.14	7917	14.88
50	9521	12.37	7753	15.20
55	9349	12.59	7595	15.51
60	9180	12.83	7443	15.83
65	9014	13.06	7297	16.15
70	8851	13.31	7156	16.47
75	8691	13.55	7021	16.78
80	8535	13.80	6892	17.10
85	8382	14.05	6767	17.42
90	8232	14.31	6647	17.73
95	8086	14.57	6532	18.05
200	5792	20.36	4914	24.03

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 900 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11185	14.25	9759*	16.33
30	10205	12.21	8450**	14.75
35	10026	12.42	8271	15.07
40	9850	12.65	8099	15.39
45	9677	12.87	7934	15.71
50	9506	13.11	7774	16.03
55	9338	13.34	7621	16.36
60	9173	13.58	7473	16.68
65	9011	13.83	7332	17.00
70	8852	14.08	7195	17.33
75	8697	14.33	7064	17.65
80	8544	14.58	6937	17.97
85	8395	14.84	6816	18.30
90	8250	15.11	6699	18.62
95	8107	15.37	6586	18.94
200	5865	21.28	4980	25.09

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 925 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11188	15.04	9789*	17.20
30	10173	12.93	8450**	15.58
35	9998	13.16	8277	15.91
40	9826	13.39	8110	16.23
45	9657	13.63	7950	16.56
50	9490	13.87	7795	16.89
55	9326	14.11	7646	17.22
60	9165	14.36	7503	17.55
65	9007	14.61	7365	17.88
70	8853	14.87	7233	18.21
75	8701	15.13	7105	18.54
80	8553	15.39	6982	18.87
85	8407	15.66	6863	19.20
90	8266	15.93	6749	19.52
95	8127	16.20	6639	19.85
200	5934	22.22	5044	26.17

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 950 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	11190	15.87	9817*	18.09
30	10140	13.69	8450**	16.43
35	9970	13.92	8282	16.77
40	9802	14.16	8121	17.10
45	9637	14.41	7965	17.44
50	9474	14.65	7815	17.77
55	9314	14.91	7671	18.11
60	9157	15.16	7532	18.45
65	9003	15.42	7398	18.78
70	8852	15.68	7269	19.12
75	8705	15.95	7144	19.45
80	8560	16.22	7024	19.78
85	8419	16.50	6909	20.12
90	8280	16.77	6797	20.45
95	8145	17.05	6690	20.78
200	6002	23.17	5107	27.27

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 ACSR (CARDINAL) RATED STRENGTH: 23,800 LBS.

ALLOWABLE AMPACITY: 996A (NOMINAL)

RULING SPAN – 975 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	10108	14.47	8450*	17.31	
35	9941	14.71	8288	17.65	
40	9777	14.96	8131	17.99	
45	9616	15.21	7980	18.34	
50	9457	15.46	7835	18.68	
55	9301	15.72	7694	19.02	
60	9148	15.99	7559	19.36	
65	8998	16.25	7429	19.70	
70	8851	16.52	7303	20.04	
75	8707	16.80	7182	20.38	
80	8567	17.08	7065	20.72	
85	8429	17.36	6952	21.06	
90	8294	17.64	6844	21.39	
95	8163	17.92	6739	21.73	
200	6067	24.15	5174	28.36	
30	11192	16.71	9844	19.01	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 1000 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	10075	15.27	8450*	18.21	
35	9912	15.52	8293	18.56	
40	9752	15.77	8141	18.91	
45	9595	16.03	7994	19.25	
50	9440	16.30	7853	19.60	
55	9288	16.56	7717	19.95	
60	9139	16.83	7586	20.30	
65	8993	17.11	7459	20.64	
70	8850	17.39	7337	20.99	
75	8710	17.67	7219	21.33	
80	8572	17.95	7105	21.68	
85	8438	18.24	6995	22.02	
90	8307	18.53	6889	22.36	
95	8179	18.82	6786	22.70	
200	6130	25.15	5246	29.42	
30	11193	17.58	9871	19.94	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 225 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	5817*	1.39	4549	1.78
30	5628**	1.01	4114	1.38
35	5395	1.05	3809	1.49
40	5161	1.10	3524	1.61
45	4927	1.15	3259	1.74
50	4694	1.21	3018	1.88
55	4462	1.27	2800	2.03
60	4232	1.34	2604	2.18
65	4005	1.42	2431	2.33
70	3783	1.50	2277	2.49
75	3567	1.59	2141	2.65
80	3358	1.69	2021	2.81
85	3158	1.80	1914	2.96
90	2968	1.91	1820	3.12
95	2790	2.03	1736	3.27
200	1177	4.83	976	5.83

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 250 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	5855*	1.71	4568	2.19
30	5628**	1.24	4064	1.72
35	5399	1.30	3779	1.85
40	5170	1.35	3514	1.99
45	4941	1.42	3270	2.14
50	4713	1.49	3048	2.30
55	4488	1.56	2848	2.46
60	4265	1.64	2667	2.63
65	4046	1.73	2506	2.79
70	3833	1.83	2363	2.96
75	3626	1.93	2235	3.13
80	3426	2.04	2121	3.30
85	3236	2.16	2019	3.47
90	3056	2.29	1928	3.63
95	2887	2.43	1846	3.80
200	1289	5.44	1070	6.57

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 275 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	5895*	2.06	4596	2.64
30	5628**	1.51	4024	2.11
35	5403	1.57	3758	2.25
40	5179	1.64	3513	2.41
45	4955	1.71	3288	2.58
50	4734	1.79	3083	2.75
55	4515	1.88	2897	2.93
60	4299	1.97	2730	3.10
65	4088	2.07	2580	3.29
70	3883	2.18	2446	3.47
75	3685	2.30	2325	3.65
80	3494	2.43	2216	3.83
85	3313	2.56	2118	4.00
90	3141	2.70	2030	4.18
95	2980	2.84	1950	4.35
200	1399	6.07	1161	7.32

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 300 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	5936*	2.43	4630	3.12
30	5628**	1.79	3994	2.53
35	5407	1.86	3747	2.69
40	5188	1.94	3519	2.87
45	4970	2.03	3311	3.05
50	4755	2.12	3121	3.23
55	4542	2.22	2948	3.42
60	4334	2.33	2793	3.61
65	4131	2.44	2652	3.80
70	3934	2.56	2525	4.00
75	3743	2.69	2410	4.19
80	3561	2.83	2306	4.38
85	3388	2.98	2212	4.56
90	3224	3.13	2127	4.75
95	3069	3.29	2049	4.93
200	1505	6.72	1250	8.10

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 325 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	5978*	2.83	4668	3.63
30	5628**	2.10	3973	2.98
35	5412	2.19	3743	3.16
40	5198	2.28	3532	3.35
45	4986	2.37	3338	3.55
50	4776	2.48	3161	3.75
55	4571	2.59	3000	3.95
60	4369	2.71	2854	4.15
65	4173	2.84	2721	4.35
70	3984	2.97	2601	4.55
75	3801	3.11	2492	4.75
80	3627	3.26	2392	4.95
85	3460	3.42	2301	5.15
90	3303	3.58	2218	5.34
95	3155	3.75	2142	5.53
200	1608	7.38	1337	8.89

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 350 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6020*	3.26	4711	4.17
30	5628**	2.44	3960	3.47
35	5417	2.53	3746	3.67
40	5208	2.64	3549	3.87
45	5001	2.74	3368	4.08
50	4798	2.86	3203	4.29
55	4599	2.98	3052	4.50
60	4404	3.12	2914	4.71
65	4216	3.26	2789	4.93
70	4033	3.40	2674	5.14
75	3858	3.56	2570	5.35
80	3690	3.72	2474	5.55
85	3531	3.89	2386	5.76
90	3380	4.06	2306	5.96
95	3238	4.24	2231	6.16
200	1708	8.05	1421	9.70

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 375 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6063*	3.72	4757	4.74
30	5628**	2.80	3954	3.99
35	5422	2.91	3754	4.20
40	5218	3.02	3570	4.42
45	5017	3.14	3401	4.64
50	4820	3.27	3246	4.86
55	4627	3.41	3104	5.08
60	4439	3.55	2973	5.30
65	4257	3.70	2854	5.52
70	4082	3.86	2745	5.75
75	3913	4.03	2645	5.96
80	3752	4.20	2553	6.18
85	3599	4.38	2468	6.39
90	3454	4.56	2389	6.60
95	3317	4.75	2317	6.81
200	1806	8.75	1503	10.52

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 400 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6106*	4.20	4805	5.34
30	5628**	3.19	3954	4.54
35	5427	3.30	3767	4.76
40	5228	3.43	3594	4.99
45	5033	3.56	3435	5.22
50	4842	3.70	3289	5.45
55	4655	3.85	3155	5.69
60	4474	4.01	3031	5.92
65	4299	4.17	2918	6.15
70	4129	4.34	2813	6.38
75	3967	4.52	2717	6.61
80	3812	4.70	2628	6.83
85	3665	4.89	2546	7.05
90	3525	5.09	2469	7.27
95	3393	5.29	2398	7.49
200	1900	9.46	1583	11.37

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 425 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6150*	4.71	4855	5.96
30	5628**	3.60	3959	5.11
35	5432	3.73	3783	5.35
40	5239	3.86	3621	5.59
45	5049	4.01	3471	5.83
50	4864	4.16	3333	6.08
55	4683	4.32	3206	6.32
60	4508	4.49	3088	6.56
65	4339	4.67	2980	6.80
70	4176	4.85	2879	7.04
75	4020	5.04	2787	7.27
80	3870	5.23	2701	7.50
85	3728	5.43	2621	7.73
90	3593	5.64	2546	7.96
95	3466	5.84	2477	8.18
200	1992	10.19	1661	12.23

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 450 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6193*	5.24	4906	6.62
30	5628**	4.03	3967	5.72
35	5437	4.17	3802	5.97
40	5249	4.32	3649	6.22
45	5065	4.48	3508	6.47
50	4886	4.65	3377	6.73
55	4711	4.82	3256	6.98
60	4542	5.00	3143	7.23
65	4378	5.18	3040	7.47
70	4221	5.38	2943	7.72
75	4071	5.58	2854	7.96
80	3927	5.78	2770	8.20
85	3790	5.99	2693	8.44
90	3659	6.20	2620	8.67
95	3536	6.42	2552	8.91
200	2081	10.93	1737	13.11

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 475 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6235*	5.80	4958	7.30
30	5628**	4.49	3979	6.36
35	5442	4.65	3823	6.62
40	5259	4.81	3679	6.88
45	5081	4.98	3545	7.14
50	4907	5.15	3420	7.40
55	4738	5.34	3305	7.66
60	4575	5.53	3197	7.92
65	4417	5.73	3098	8.17
70	4265	5.93	3005	8.42
75	4120	6.14	2918	8.68
80	3981	6.35	2838	8.92
85	3849	6.57	2762	9.17
90	3723	6.80	2691	9.41
95	3603	7.02	2625	9.65
200	2168	11.69	1812	14.01

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 500 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6278*	6.38	5010	8.00
30	5628**	4.98	3994	7.02
35	5447	5.14	3846	7.29
40	5270	5.32	3709	7.56
45	5097	5.50	3582	7.83
50	4928	5.69	3463	8.10
55	4765	5.88	3353	8.36
60	4607	6.08	3250	8.63
65	4454	6.29	3154	8.89
70	4308	6.51	3065	9.15
75	4168	6.73	2981	9.41
80	4033	6.95	2903	9.67
85	3905	7.18	2829	9.92
90	3784	7.41	2760	10.17
95	3668	7.64	2695	10.41
200	2252	12.47	1884	14.93

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 525 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6319*	6.99	5062	8.73
30	5628**	5.49	4011	7.71
35	5452	5.67	3871	7.99
40	5280	5.85	3741	8.26
45	5112	6.04	3619	8.54
50	4949	6.24	3506	8.82
55	4791	6.45	3400	9.09
60	4638	6.66	3302	9.37
65	4491	6.88	3209	9.64
70	4349	7.11	3123	9.91
75	4214	7.33	3042	10.17
80	4084	7.57	2965	10.43
85	3960	7.81	2894	10.69
90	3842	8.05	2826	10.95
95	3730	8.29	2763	11.20
200	2334	13.27	1955	15.87

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 550 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6361*	7.63	5115	9.49
30	5628**	6.02	4029	8.42
35	5457	6.21	3896	8.71
40	5290	6.41	3772	9.00
45	5127	6.61	3656	9.28
50	4969	6.82	3548	9.57
55	4816	7.04	3447	9.85
60	4668	7.26	3352	10.13
65	4526	7.49	3263	10.41
70	4389	7.73	3179	10.68
75	4258	7.97	3100	10.95
80	4133	8.21	3026	11.22
85	4013	8.45	2956	11.49
90	3898	8.70	2891	11.75
95	3790	8.95	2828	12.01
200	2414	14.09	2024	16.82

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 575 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6401*	8.28	5167	10.27
30	5628**	6.59	4049	9.16
35	5462	6.79	3922	9.46
40	5300	6.99	3804	9.75
45	5142	7.21	3693	10.04
50	4989	7.43	3589	10.34
55	4841	7.66	3492	10.62
60	4698	7.89	3400	10.91
65	4560	8.13	3314	11.20
70	4428	8.37	3233	11.48
75	4301	8.62	3157	11.76
80	4180	8.87	3085	12.03
85	4064	9.13	3017	12.31
90	3953	9.38	2953	12.58
95	3847	9.64	2892	12.84
200	2491	14.92	2092	17.79

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 600 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6441*	8.96	5218	11.07
30	5628**	7.17	4070	9.92
35	5466	7.38	3949	10.23
40	5309	7.60	3836	10.53
45	5156	7.83	3730	10.83
50	5008	8.06	3630	11.13
55	4865	8.30	3536	11.43
60	4727	8.54	3448	11.72
65	4593	8.79	3365	12.01
70	4465	9.04	3286	12.30
75	4343	9.30	3212	12.58
80	4225	9.56	3142	12.87
85	4112	9.82	3076	13.14
90	4005	10.08	3013	13.42
95	3902	10.35	2953	13.69
200	2566	15.77	2158	18.78

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 625 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6480*	9.67	5269	11.90
30	5628**	7.78	4091	10.71
35	5471	8.00	3976	11.02
40	5319	8.23	3868	11.33
45	5171	8.47	3766	11.64
50	5027	8.71	3670	11.95
55	4888	8.96	3580	12.25
60	4754	9.21	3494	12.55
65	4626	9.47	3414	12.85
70	4502	9.73	3338	13.14
75	4383	10.00	3265	13.43
80	4269	10.27	3197	13.72
85	4159	10.54	3132	14.01
90	4055	10.81	3071	14.29
95	3955	11.08	3012	14.57
200	2639	16.64	2223	19.79

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 650 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6518*	10.40	5320	12.75
30	5628**	8.42	4114	11.52
35	5476	8.65	4004	11.84
40	5328	8.89	3900	12.16
45	5184	9.14	3802	12.47
50	5045	9.39	3709	12.78
55	4911	9.65	3622	13.09
60	4781	9.91	3540	13.40
65	4657	10.18	3461	13.70
70	4536	10.45	3387	14.01
75	4421	10.72	3317	14.30
80	4311	11.00	3251	14.60
85	4205	11.27	3187	14.89
90	4103	11.55	3127	15.18
95	4006	11.83	3070	15.46
200	2710	17.53	2286	20.82

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 675 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6555*	11.15	5370	13.62
30	5628**	9.08	4137	12.36
35	5480	9.32	4031	12.69
40	5337	9.57	3931	13.01
45	5198	9.83	3837	13.33
50	5063	10.09	3748	13.65
55	4933	10.36	3663	13.96
60	4807	10.63	3584	14.28
65	4686	10.91	3508	14.59
70	4570	11.18	3436	14.89
75	4458	11.46	3368	15.20
80	4351	11.75	3303	15.50
85	4248	12.03	3241	15.79
90	4150	12.32	3182	16.09
95	4055	12.61	3125	16.38
200	2778	18.44	2347	21.86

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 700 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6591*	11.93	5419	14.52
30	5628**	9.76	4160	13.22
35	5485	10.02	4058	13.55
40	5346	10.28	3962	13.88
45	5211	10.55	3871	14.21
50	5080	10.82	3785	14.53
55	4954	11.09	3704	14.85
60	4833	11.37	3626	15.17
65	4715	11.66	3553	15.49
70	4603	11.94	3483	15.80
75	4494	12.23	3416	16.11
80	4390	12.52	3353	16.42
85	4290	12.82	3292	16.72
90	4194	13.11	3235	17.02
95	4102	13.41	3179	17.32
200	2845	19.37	2408	22.93

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 725 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6627*	12.72	5467	15.44
30	5628**	10.47	4183	14.10
35	5489	10.74	4085	14.44
40	5354	11.01	3993	14.78
45	5223	11.29	3905	15.11
50	5097	11.57	3822	15.44
55	4975	11.85	3743	15.77
60	4857	12.14	3668	16.09
65	4743	12.43	3597	16.41
70	4634	12.73	3529	16.73
75	4529	13.02	3464	17.05
80	4428	13.32	3402	17.36
85	4330	13.62	3343	17.67
90	4237	13.92	3286	17.98
95	4148	14.22	3232	18.28
200	2910	20.31	2467	24.01

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 750 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6662*	13.55	5515	16.38
30	5628**	11.21	4206	15.01
35	5493	11.48	4112	15.36
40	5362	11.77	4023	15.70
45	5236	12.05	3939	16.04
50	5113	12.34	3858	16.37
55	4995	12.63	3782	16.70
60	4880	12.93	3709	17.03
65	4770	13.23	3639	17.36
70	4664	13.53	3573	17.69
75	4562	13.84	3510	18.01
80	4464	14.14	3449	18.32
85	4369	14.45	3391	18.64
90	4279	14.76	3336	18.95
95	4191	15.06	3283	19.26
200	2974	21.28	2524	25.11

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 775 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6687	14.41	5557*	17.36
30	5618	11.99	4225**	15.96
35	5488	12.28	4135	16.31
40	5361	12.57	4049	16.66
45	5239	12.86	3968	17.00
50	5120	13.16	3890	17.34
55	5006	13.46	3816	17.68
60	4895	13.77	3745	18.02
65	4789	14.07	3678	18.35
70	4686	14.38	3613	18.68
75	4587	14.69	3552	19.00
80	4492	15.01	3493	19.33
85	4400	15.32	3436	19.65
90	4312	15.64	3382	19.96
95	4228	15.95	3330	20.28
200	3032	22.28	2579	26.24

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 800 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6678	15.38	5577*	18.43
30	5570	12.89	4225**	17.01
35	5446	13.18	4139	17.36
40	5324	13.48	4057	17.71
45	5207	13.79	3979	18.06
50	5094	14.10	3905	18.41
55	4984	14.41	3834	18.75
60	4878	14.72	3766	19.09
65	4776	15.04	3701	19.43
70	4678	15.36	3639	19.76
75	4583	15.67	3580	20.09
80	4492	15.99	3523	20.42
85	4404	16.31	3468	20.75
90	4319	16.64	3415	21.07
95	4238	16.96	3365	21.39
200	3078	23.40	2628	27.45

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 825 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6668	16.38	5597*	19.54
30	5523	13.82	4225**	18.09
35	5404	14.13	4143	18.45
40	5288	14.44	4065	18.81
45	5175	14.76	3991	19.16
50	5067	15.07	3919	19.51
55	4962	15.39	3851	19.86
60	4861	15.72	3786	20.20
65	4763	16.04	3724	20.54
70	4669	16.36	3664	20.88
75	4578	16.69	3606	21.21
80	4491	17.02	3551	21.55
85	4406	17.34	3498	21.88
90	4325	17.67	3447	22.20
95	4247	18.00	3398	22.52
200	3121	24.54	2675	28.69

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 850 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6657	17.42	5615*	20.67
30	5477	14.80	4225**	19.21
35	5362	15.12	4147	19.57
40	5251	15.44	4072	19.93
45	5144	15.76	4001	20.29
50	5040	16.09	3933	20.64
55	4940	16.42	3867	20.99
60	4843	16.75	3805	21.34
65	4749	17.08	3745	21.69
70	4659	17.41	3687	22.03
75	4572	17.74	3631	22.37
80	4489	18.07	3578	22.70
85	4408	18.41	3527	23.04
90	4330	18.74	3477	23.37
95	4255	19.07	3430	23.69
200	3163	25.71	2720	29.95

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 875 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6645	18.50	5632*	21.84
30	5431	15.82	4225**	20.36
35	5322	16.14	4151	20.72
40	5216	16.47	4079	21.09
45	5113	16.81	4011	21.45
50	5014	17.14	3946	21.81
55	4918	17.48	3883	22.16
60	4825	17.81	3822	22.52
65	4736	18.15	3765	22.86
70	4649	18.49	3709	23.21
75	4566	18.83	3655	23.55
80	4486	19.17	3604	23.89
85	4408	19.51	3554	24.23
90	4334	19.84	3506	24.56
95	4262	20.18	3460	24.89
200	3202	26.92	2764	31.24

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 900 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6633	19.61	5649*	23.05
30	5387	16.87	4225**	21.54
35	5282	17.21	4154	21.91
40	5181	17.55	4086	22.28
45	5083	17.89	4020	22.64
50	4988	18.23	3957	23.01
55	4896	18.57	3897	23.37
60	4807	18.92	3839	23.72
65	4722	19.26	3783	24.07
70	4639	19.61	3730	24.42
75	4560	19.95	3678	24.77
80	4483	20.30	3628	25.11
85	4408	20.64	3580	25.45
90	4336	20.98	3533	25.79
95	4267	21.33	3488	26.13
200	3239	28.15	2806	32.56

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 925 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6621	20.75	5664*	24.28
30	5344	17.97	4225**	22.76
35	5243	18.32	4157	23.13
40	5147	18.66	4092	23.50
45	5053	19.01	4029	23.87
50	4962	19.36	3969	24.24
55	4875	19.71	3911	24.60
60	4790	20.06	3855	24.96
65	4708	20.41	3801	25.32
70	4629	20.76	3749	25.67
75	4553	21.11	3699	26.02
80	4479	21.46	3651	26.37
85	4408	21.81	3604	26.71
90	4339	22.16	3559	27.05
95	4272	22.51	3516	27.39
200	3275	29.42	2847	33.91

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 950 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	6608	21.94	5679*	25.55
30	5302	19.11	4225**	24.01
35	5206	19.46	4160	24.39
40	5114	19.81	4097	24.76
45	5024	20.17	4037	25.13
50	4938	20.52	3979	25.50
55	4854	20.88	3924	25.87
60	4773	21.24	3870	26.23
65	4694	21.59	3818	26.59
70	4619	21.95	3768	26.95
75	4546	22.31	3719	27.30
80	4475	22.66	3673	27.65
85	4406	23.01	3627	28.00
90	4340	23.37	3584	28.34
95	4276	23.72	3541	28.68
200	3309	30.72	2886	35.29

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 954 AAC (GOLDENROD) RATED STRENGTH: 16,900 LBS.

ALLOWABLE AMPACITY: 983A (NOMINAL)

RULING SPAN – 975 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	6595	23.16	5693*	26.85	
30	5261	20.29	4225**	25.29	
35	5170	20.65	4163	25.67	
40	5082	21.01	4103	26.05	
45	4996	21.37	4045	26.43	
50	4913	21.73	3989	26.80	
55	4833	22.09	3936	27.17	
60	4756	22.45	3884	27.53	
65	4681	22.81	3834	27.90	
70	4608	23.18	3785	28.26	
75	4538	23.54	3739	28.61	
80	4470	23.90	3693	28.97	
85	4405	24.25	3649	29.32	
90	4341	24.61	3607	29.67	
95	4279	24.97	3566	30.01	
200	3342	32.05	2924	36.69	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 1000 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	6582	24.41	5706	28.19	
30	5222	21.50	4225*	26.61	
35	5135	21.87	4165	27.00	
40	5051	22.24	4108	27.38	
45	4969	22.60	4052	27.75	
50	4890	22.97	3999	28.13	
55	4813	23.34	3947	28.50	
60	4739	23.71	3897	28.87	
65	4668	24.07	3849	29.24	
70	4598	24.44	3802	29.60	
75	4531	24.80	3757	29.96	
80	4466	25.17	3713	30.32	
85	4403	25.53	3670	30.67	
90	4341	25.89	3629	31.02	
95	4282	26.25	3589	31.37	
200	3372	33.41	2961	38.13	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 225 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	17812	0.85	13853*	1.10
30	17719	0.73	13625**	0.95
35	17271	0.75	12920	1.00
40	16818	0.77	12227	1.06
45	16359	0.79	11547	1.12
50	15896	0.81	10885	1.19
55	15426	0.84	10242	1.26
60	14952	0.87	9621	1.34
65	14474	0.89	9026	1.43
70	13990	0.92	8460	1.53
75	13503	0.96	7926	1.63
80	13013	0.99	7426	1.74
85	12520	1.03	6962	1.86
90	12025	1.08	6534	1.98
95	11530	1.12	6143	2.11
200	4028	3.21	3739	3.46

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 250 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	17900	1.05	13899*	1.35
30	17787	0.90	13625**	1.17
35	17343	0.92	12935	1.23
40	16894	0.95	12260	1.30
45	16439	0.97	11600	1.38
50	15980	1.00	10958	1.46
55	15516	1.03	10338	1.54
60	15048	1.06	9741	1.64
65	14575	1.10	9171	1.74
70	14099	1.13	8631	1.85
75	13620	1.17	8121	1.97
80	13138	1.22	7645	2.09
85	12654	1.26	7203	2.22
90	12169	1.31	6795	2.35
95	11684	1.37	6421	2.49
200	4373	3.66	3980	4.02

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 275 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	17985	1.26	13948*	1.63
30	17851	1.08	13625**	1.42
35	17411	1.11	12952	1.49
40	16966	1.14	12294	1.57
45	16516	1.17	11654	1.66
50	16062	1.20	11034	1.75
55	15603	1.24	10436	1.85
60	15141	1.28	9862	1.96
65	14674	1.32	9316	2.07
70	14205	1.36	8799	2.20
75	13734	1.41	8313	2.33
80	13260	1.46	7858	2.46
85	12785	1.51	7436	2.60
90	12311	1.57	7045	2.74
95	11837	1.63	6686	2.89
200	4704	4.11	4212	4.59

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 300 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18067	1.49	13997*	1.93
30	17910	1.28	13625**	1.69
35	17474	1.32	12969	1.77
40	17033	1.35	12330	1.87
45	16588	1.39	11710	1.96
50	16139	1.43	11110	2.07
55	15686	1.47	10534	2.18
60	15229	1.51	9983	2.30
65	14770	1.56	9460	2.43
70	14308	1.61	8964	2.57
75	13844	1.66	8499	2.71
80	13379	1.72	8064	2.85
85	12913	1.78	7660	3.00
90	12449	1.85	7285	3.16
95	11986	1.92	6939	3.32
200	5023	4.58	4435	5.19

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 325 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18145	1.75	14049*	2.26
30	17963	1.50	13625**	1.98
35	17531	1.54	12987	2.08
40	17095	1.58	12367	2.18
45	16654	1.62	11766	2.29
50	16210	1.67	11188	2.41
55	15763	1.71	10633	2.54
60	15313	1.76	10103	2.67
65	14860	1.82	9601	2.81
70	14405	1.87	9126	2.96
75	13949	1.94	8680	3.11
80	13493	2.00	8263	3.27
85	13037	2.07	7874	3.43
90	12582	2.15	7514	3.59
95	12129	2.23	7180	3.76
200	5328	5.07	4650	5.81

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 350 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18217	2.02	14101*	2.61
30	18010	1.74	13625**	2.30
35	17582	1.78	13005	2.41
40	17150	1.83	12403	2.52
45	16715	1.87	11823	2.65
50	16276	1.92	11264	2.78
55	15834	1.98	10730	2.92
60	15390	2.03	10221	3.06
65	14945	2.09	9738	3.22
70	14497	2.16	9283	3.37
75	14049	2.23	8855	3.54
80	13601	2.30	8454	3.70
85	13154	2.38	8080	3.88
90	12709	2.46	7733	4.05
95	12267	2.55	7410	4.23
200	5622	5.57	4857	6.46

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 375 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18283	2.31	14153*	2.98
30	18050	1.99	13625**	2.64
35	17626	2.04	13023	2.76
40	17199	2.09	12441	2.89
45	16768	2.14	11879	3.03
50	16335	2.20	11341	3.17
55	15900	2.26	10826	3.32
60	15462	2.32	10337	3.48
65	15023	2.39	9873	3.64
70	14583	2.46	9435	3.81
75	14143	2.54	9024	3.98
80	13704	2.62	8638	4.16
85	13266	2.71	8278	4.34
90	12831	2.80	7942	4.53
95	12399	2.90	7629	4.71
200	5905	6.09	5057	7.12

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 400 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18344	2.62	14205*	3.38
30	18083	2.26	13625**	3.00
35	17663	2.31	13041	3.14
40	17241	2.37	12478	3.28
45	16816	2.43	11935	3.43
50	16388	2.50	11416	3.58
55	15958	2.56	10921	3.75
60	15527	2.63	10450	3.91
65	15095	2.71	10003	4.09
70	14663	2.79	9583	4.27
75	14231	2.87	9187	4.45
80	13800	2.96	8815	4.64
85	13372	3.06	8467	4.83
90	12946	3.16	8142	5.02
95	12524	3.27	7839	5.22
200	6176	6.63	5251	7.80

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 425 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18399	2.95	14258*	3.80
30	18108	2.55	13625**	3.39
35	17693	2.61	13059	3.54
40	17276	2.67	12514	3.69
45	16856	2.74	11991	3.85
50	16434	2.81	11490	4.02
55	16010	2.88	11013	4.19
60	15586	2.96	10559	4.37
65	15161	3.04	10130	4.56
70	14736	3.13	9725	4.75
75	14312	3.23	9343	4.94
80	13890	3.32	8985	5.14
85	13470	3.43	8649	5.34
90	13054	3.54	8334	5.54
95	12642	3.65	8040	5.75
200	6436	7.18	5438	8.50

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 450 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18448	3.29	14309*	4.25
30	18127	2.85	13625**	3.80
35	17716	2.92	13077	3.96
40	17304	2.99	12551	4.12
45	16889	3.06	12045	4.30
50	16473	3.14	11562	4.48
55	16056	3.22	11103	4.66
60	15638	3.31	10666	4.85
65	15220	3.40	10252	5.05
70	14803	3.50	9862	5.25
75	14387	3.60	9494	5.45
80	13973	3.70	9148	5.66
85	13562	3.82	8823	5.87
90	13156	3.93	8518	6.08
95	12754	4.06	8232	6.29
200	6686	7.75	5620	9.23

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 475 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18490	3.66	14360*	4.72
30	18138	3.18	13625**	4.23
35	17732	3.25	13095	4.40
40	17325	3.33	12586	4.58
45	16916	3.41	12099	4.77
50	16505	3.49	11633	4.96
55	16094	3.58	11190	5.15
60	15683	3.68	10769	5.36
65	15272	3.78	10370	5.56
70	14863	3.88	9994	5.77
75	14455	3.99	9639	5.99
80	14050	4.10	9304	6.20
85	13648	4.23	8990	6.42
90	13250	4.35	8694	6.64
95	12858	4.49	8416	6.86
200	6926	8.34	5795	9.97

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 500 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18527	4.05	14411*	5.21
30	18142	3.52	13625**	4.69
35	17742	3.60	13113	4.87
40	17339	3.68	12621	5.06
45	16936	3.77	12151	5.26
50	16531	3.87	11702	5.46
55	16126	3.96	11274	5.67
60	15722	4.06	10869	5.88
65	15319	4.17	10484	6.10
70	14917	4.28	10121	6.32
75	14517	4.40	9778	6.54
80	14120	4.53	9454	6.76
85	13727	4.66	9149	6.99
90	13338	4.79	8862	7.22
95	12955	4.93	8592	7.44
200	7156	8.94	5966	10.73

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON) RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 525 FEET				
		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18557	4.46	14460*	5.72
30	18140	3.88	13625**	5.17
35	17744	3.97	13130	5.37
40	17347	4.06	12655	5.57
45	16949	4.16	12201	5.78
50	16551	4.26	11768	5.99
55	16152	4.36	11356	6.21
60	15755	4.47	10965	6.43
65	15358	4.59	10594	6.65
70	14964	4.71	10243	6.88
75	14572	4.83	9911	7.11
80	14184	4.97	9598	7.34
85	13800	5.11	9303	7.58
90	13420	5.25	9024	7.81
95	13046	5.40	8761	8.05
200	7376	9.56	6131	11.52

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 550 FEET				
		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18582	4.88	14508*	6.26
30	18131	4.26	13625**	5.68
35	17740	4.36	13147	5.88
40	17348	4.46	12688	6.10
45	16956	4.56	12250	6.31
50	16564	4.67	11833	6.54
55	16172	4.78	11435	6.76
60	15781	4.90	11058	7.00
65	15392	5.02	10700	7.23
70	15006	5.15	10360	7.47
75	14622	5.29	10039	7.71
80	14242	5.43	9736	7.95
85	13866	5.58	9449	8.19
90	13496	5.73	9179	8.43
95	13131	5.89	8923	8.67
200	7588	10.20	6291	12.32

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 575 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18602	5.33	14556*	6.82
30	18115	4.66	13625**	6.20
35	17730	4.77	13163	6.42
40	17343	4.87	12721	6.65
45	16957	4.98	12298	6.87
50	16571	5.10	11895	7.11
55	16186	5.22	11512	7.34
60	15802	5.35	11147	7.59
65	15421	5.48	10801	7.83
70	15042	5.62	10473	8.07
75	14666	5.76	10163	8.32
80	14294	5.91	9868	8.57
85	13927	6.07	9590	8.82
90	13565	6.23	9327	9.07
95	13209	6.40	9078	9.32
200	7792	10.86	6447	13.14

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 600 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18616	5.80	14601*	7.40
30	18094	5.09	13625**	6.76
35	17713	5.19	13179	6.98
40	17333	5.31	12752	7.22
45	16952	5.43	12344	7.46
50	16573	5.55	11955	7.70
55	16194	5.68	11585	7.95
60	15818	5.82	11233	8.20
65	15443	5.96	10899	8.45
70	15072	6.11	10581	8.70
75	14704	6.26	10281	8.96
80	14341	6.42	9995	9.21
85	13982	6.58	9725	9.47
90	13629	6.75	9469	9.73
95	13282	6.93	9227	9.98
200	7987	11.54	6598	13.98

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON) RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 625 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18625	6.29	14646*	8.01
30	18066	5.53	13625**	7.33
35	17691	5.64	13194	7.57
40	17316	5.77	12782	7.81
45	16942	5.89	12389	8.06
50	16569	6.03	12013	8.32
55	16197	6.16	11656	8.57
60	15828	6.31	11316	8.83
65	15461	6.46	10992	9.09
70	15097	6.61	10685	9.35
75	14738	6.78	10394	9.61
80	14382	6.94	10117	9.88
85	14032	7.12	9855	10.14
90	13687	7.30	9606	10.41
95	13349	7.48	9369	10.67
200	8174	12.24	6745	14.84

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 650 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18630	6.81	14689*	8.64
30	18034	5.99	13625**	7.93
35	17664	6.11	13209	8.18
40	17295	6.24	12812	8.43
45	16927	6.38	12432	8.69
50	16560	6.52	12069	8.95
55	16196	6.67	11724	9.22
60	15833	6.82	11395	9.48
65	15474	6.98	11083	9.75
70	15118	7.15	10785	10.02
75	14766	7.32	10503	10.29
80	14419	7.49	10234	10.56
85	14077	7.67	9979	10.83
90	13741	7.86	9737	11.10
95	13411	8.06	9506	11.37
200	8353	12.95	6888	15.72

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 675 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18630	7.34	14731*	9.29
30	17996	6.47	13625**	8.55
35	17632	6.61	13224	8.81
40	17269	6.74	12840	9.08
45	16907	6.89	12473	9.34
50	16547	7.04	12123	9.61
55	16189	7.20	11789	9.89
60	15834	7.36	11472	10.16
65	15482	7.52	11169	10.44
70	15134	7.70	10881	10.71
75	14790	7.88	10607	10.99
80	14451	8.06	10346	11.27
85	14117	8.25	10098	11.55
90	13789	8.45	9862	11.82
95	13467	8.65	9638	12.10
200	8526	13.68	7027	16.62

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 700 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18626	7.90	14772*	9.96
30	17954	6.98	13625**	9.20
35	17595	7.12	13238	9.47
40	17238	7.27	12867	9.74
45	16883	7.42	12513	10.02
50	16530	7.58	12175	10.29
55	16179	7.74	11852	10.58
60	15831	7.91	11545	10.86
65	15486	8.09	11252	11.14
70	15146	8.27	10973	11.43
75	14809	8.46	10707	11.71
80	14478	8.65	10454	11.99
85	14153	8.85	10213	12.28
90	13833	9.06	9983	12.56
95	13519	9.27	9764	12.85
200	8691	14.44	7162	17.54

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 725 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18618	8.47	14811*	10.66
30	17907	7.50	13625**	9.87
35	17555	7.65	13251	10.15
40	17204	7.81	12893	10.43
45	16855	7.97	12551	10.71
50	16508	8.14	12225	11.00
55	16164	8.31	11913	11.29
60	15823	8.49	11615	11.58
65	15486	8.68	11332	11.87
70	15153	8.87	11061	12.16
75	14825	9.07	10803	12.45
80	14502	9.27	10557	12.74
85	14184	9.48	10322	13.03
90	13872	9.69	10099	13.32
95	13567	9.91	9885	13.61
200	8850	15.21	7293	18.48

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 750 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18606	9.08	14849*	11.38
30	17856	8.05	13625**	10.56
35	17510	8.21	13264	10.85
40	17165	8.38	12919	11.14
45	16823	8.55	12588	11.43
50	16483	8.73	12273	11.73
55	16146	8.91	11971	12.02
60	15812	9.10	11683	12.32
65	15483	9.29	11408	12.62
70	15157	9.49	11146	12.91
75	14837	9.70	10895	13.21
80	14522	9.91	10656	13.51
85	14212	10.12	10428	13.81
90	13908	10.34	10210	14.10
95	13610	10.57	10001	14.40
200	9003	16.00	7421	19.44

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 775 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18591	9.70	14886*	12.12
30	17802	8.63	13625**	11.28
35	17461	8.79	13277	11.57
40	17123	8.97	12943	11.87
45	16787	9.15	12624	12.17
50	16454	9.33	12319	12.47
55	16124	9.52	12027	12.78
60	15798	9.72	11748	13.08
65	15476	9.92	11481	13.39
70	15158	10.13	11227	13.69
75	14845	10.35	10984	14.00
80	14538	10.57	10751	14.30
85	14236	10.79	10529	14.60
90	13940	11.02	10317	14.90
95	13650	11.26	10113	15.21
200	9149	16.82	7546	20.41

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 800 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18573	10.35	14921*	12.88
30	17744	9.22	13625**	12.02
35	17410	9.40	13289	12.32
40	17078	9.58	12966	12.63
45	16749	9.77	12658	12.94
50	16423	9.97	12363	13.25
55	16100	10.17	12080	13.56
60	15781	10.37	11810	13.87
65	15466	10.58	11552	14.18
70	15156	10.80	11305	14.49
75	14851	11.02	11069	14.80
80	14551	11.25	10842	15.11
85	14256	11.48	10626	15.42
90	13968	11.72	10419	15.73
95	13685	11.96	10221	16.03
200	9290	17.65	7667	21.41

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 825 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18552	11.01	14956*	13.67
30	17683	9.84	13625**	12.78
35	17356	10.03	13300	13.09
40	17030	10.22	12989	13.41
45	16708	10.42	12691	13.72
50	16389	10.62	12405	14.04
55	16073	10.83	12132	14.36
60	15761	11.04	11870	14.68
65	15454	11.26	11619	14.99
70	15151	11.49	11380	15.31
75	14853	11.72	11150	15.63
80	14561	11.96	10930	15.94
85	14274	12.20	10720	16.26
90	13993	12.44	10518	16.57
95	13718	12.69	10324	16.88
200	9425	18.50	7785	22.43

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 850 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18529	11.71	14988*	14.48
30	17620	10.49	13625**	13.57
35	17299	10.68	13311	13.89
40	16980	10.88	13010	14.21
45	16664	11.09	12722	14.53
50	16352	11.30	12446	14.86
55	16043	11.52	12181	15.18
60	15739	11.74	11927	15.50
65	15439	11.97	11684	15.83
70	15144	12.20	11452	16.15
75	14853	12.44	11228	16.47
80	14568	12.69	11014	16.79
85	14289	12.94	10809	17.11
90	14015	13.19	10612	17.43
95	13747	13.45	10424	17.75
200	9554	19.37	7900	23.46

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 875 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18503	12.42	15020*	15.31
30	17555	11.15	13625**	14.38
35	17240	11.36	13322	14.71
40	16928	11.57	13031	15.04
45	16619	11.78	12752	15.37
50	16313	12.00	12485	15.70
55	16012	12.23	12228	16.03
60	15715	12.46	11982	16.36
65	15422	12.70	11747	16.69
70	15134	12.94	11520	17.01
75	14851	13.19	11304	17.34
80	14573	13.44	11095	17.67
85	14301	13.70	10895	17.99
90	14034	13.96	10704	18.32
95	13774	14.22	10519	18.64
200	9679	20.27	8012	24.52

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 900 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18475	13.17	15051*	16.17
30	17487	11.85	13625**	15.21
35	17179	12.06	13332	15.55
40	16873	12.28	13051	15.88
45	16571	12.50	12781	16.22
50	16273	12.73	12522	16.56
55	15979	12.97	12274	16.89
60	15688	13.21	12035	17.23
65	15403	13.45	11806	17.56
70	15122	13.70	11587	17.90
75	14846	13.96	11376	18.23
80	14576	14.22	11173	18.56
85	14311	14.48	10978	18.90
90	14051	14.75	10791	19.22
95	13797	15.02	10611	19.55
200	9799	21.18	8122	25.59

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 925 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18445	13.93	15080*	17.05
30	17418	12.56	13625**	16.07
35	17116	12.79	13342	16.41
40	16818	13.01	13070	16.76
45	16522	13.25	12809	17.10
50	16231	13.48	12558	17.44
55	15944	13.73	12317	17.78
60	15661	13.98	12086	18.13
65	15382	14.23	11864	18.47
70	15108	14.49	11650	18.81
75	14840	14.75	11445	19.14
80	14576	15.02	11248	19.48
85	14318	15.29	11058	19.82
90	14066	15.57	10876	20.15
95	13819	15.84	10700	20.48
200	9914	22.12	8228	26.69

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 950 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	18414	14.72	15109*	17.95
30	17348	13.31	13625**	16.95
35	17053	13.54	13351	17.30
40	16761	13.77	13088	17.65
45	16472	14.01	12836	18.00
50	16188	14.26	12593	18.35
55	15907	14.51	12359	18.70
60	15631	14.77	12135	19.04
65	15360	15.03	11919	19.39
70	15093	15.30	11711	19.73
75	14832	15.57	11512	20.08
80	14575	15.84	11320	20.42
85	14324	16.12	11135	20.76
90	14078	16.41	10957	21.10
95	13838	16.69	10785	21.44
200	10025	23.07	8332	27.80

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)

RATED STRENGTH: 54,500 LBS.

ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 975 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	18381	15.53	15136*	18.88	
30	17277	14.07	13625**	17.86	
35	16988	14.31	13360	18.21	
40	16703	14.56	13106	18.57	
45	16421	14.81	12861	18.92	
50	16143	15.06	12626	19.28	
55	15870	15.32	12399	19.63	
60	15601	15.59	12181	19.98	
65	15336	15.86	11972	20.33	
70	15077	16.13	11770	20.69	
75	14822	16.41	11576	21.03	
80	14572	16.69	11389	21.38	
85	14328	16.98	11208	21.73	
90	14088	17.27	11035	22.07	
95	13854	17.56	10867	22.41	
200	10131	24.05	8433	28.94	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 1000 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	18347	16.37	15162*	19.82	
30	17205	14.87	13625**	18.79	
35	16922	15.12	13369	19.15	
40	16644	15.37	13123	19.51	
45	16369	15.63	12886	19.87	
50	16098	15.89	12658	20.23	
55	15832	16.16	12438	20.59	
60	15569	16.43	12226	20.95	
65	15312	16.71	12023	21.30	
70	15059	16.99	11827	21.66	
75	14811	17.28	11637	22.01	
80	14568	17.57	11455	22.36	
85	14330	17.86	11279	22.71	
90	14097	18.16	11110	23.06	
95	13869	18.46	10946	23.41	
200	10234	25.05	8532	30.09	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 225 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	13949	1.09	11222*	1.35
30	13791	0.94	10900**	1.19
35	13315	0.97	10256	1.26
40	12837	1.01	9635	1.34
45	12356	1.05	9040	1.43
50	11873	1.09	8473	1.53
55	11390	1.14	7938	1.63
60	10907	1.19	7437	1.74
65	10426	1.24	6972	1.86
70	9948	1.30	6544	1.98
75	9476	1.37	6152	2.10
80	9011	1.44	5796	2.23
85	8555	1.51	5474	2.36
90	8112	1.59	5182	2.50
95	7684	1.68	4920	2.63
200	3330	3.89	3167	4.09

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 250 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14067	1.33	11279*	1.66
30	13877	1.15	10900**	1.47
35	13409	1.19	10282	1.55
40	12939	1.23	9687	1.65
45	12467	1.28	9120	1.75
50	11994	1.33	8582	1.86
55	11522	1.39	8076	1.98
60	11051	1.45	7603	2.10
65	10583	1.51	7164	2.23
70	10119	1.58	6759	2.36
75	9661	1.65	6388	2.50
80	9212	1.73	6050	2.64
85	8773	1.82	5741	2.78
90	8347	1.91	5461	2.93
95	7936	2.01	5207	3.07
200	3564	4.49	3406	4.70

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 275 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	14172	1.60	11338*	2.00	
30	13950	1.39	10900**	1.77	
35	13490	1.43	10307	1.88	
40	13028	1.48	9740	1.98	
45	12565	1.54	9200	2.10	
50	12102	1.60	8689	2.22	
55	11641	1.66	8210	2.35	
60	11182	1.73	7762	2.49	
65	10726	1.80	7347	2.63	
70	10276	1.88	6964	2.78	
75	9833	1.97	6611	2.92	
80	9400	2.06	6288	3.07	
85	8976	2.15	5992	3.23	
90	8566	2.26	5722	3.38	
95	8170	2.37	5476	3.53	
200	3787	5.11	3634	5.33	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 300 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	14266	1.89	11396*	2.37	
30	14008	1.64	10900**	2.11	
35	13556	1.70	10333	2.23	
40	13103	1.76	9791	2.35	
45	12649	1.82	9278	2.48	
50	12197	1.89	8793	2.62	
55	11746	1.96	8339	2.76	
60	11299	2.04	7915	2.91	
65	10857	2.12	7521	3.06	
70	10420	2.21	7157	3.22	
75	9991	2.30	6821	3.37	
80	9572	2.40	6512	3.53	
85	9164	2.51	6228	3.70	
90	8769	2.62	5967	3.86	
95	8388	2.74	5728	4.02	
200	4000	5.76	3852	5.98	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 325 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14347	2.21	11454*	2.77
30	14053	1.92	10900**	2.48
35	13609	1.98	10358	2.61
40	13164	2.05	9842	2.74
45	12720	2.12	9354	2.89
50	12278	2.20	8894	3.04
55	11839	2.28	8463	3.19
60	11404	2.37	8060	3.35
65	10974	2.46	7686	3.51
70	10551	2.56	7339	3.68
75	10136	2.66	7018	3.85
80	9731	2.77	6722	4.02
85	9337	2.89	6449	4.19
90	8956	3.01	6197	4.36
95	8589	3.14	5965	4.53
200	4264	6.34	4061	6.66

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 350 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14416	2.55	11511*	3.19
30	14084	2.22	10900**	2.87
35	13648	2.29	10383	3.02
40	13213	2.37	9891	3.17
45	12779	2.45	9427	3.32
50	12347	2.54	8990	3.48
55	11919	2.63	8581	3.65
60	11496	2.72	8198	3.82
65	11078	2.83	7842	3.99
70	10668	2.93	7511	4.17
75	10267	3.05	7205	4.35
80	9875	3.17	6920	4.53
85	9495	3.30	6657	4.71
90	9128	3.43	6414	4.88
95	8774	3.57	6188	5.06
200	4522	6.94	4261	7.36

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 375 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	14474	2.92	11566*	3.65	
30	14103	2.55	10900**	3.30	
35	13675	2.63	10407	3.45	
40	13249	2.71	9939	3.62	
45	12825	2.80	9498	3.79	
50	12404	2.90	9082	3.96	
55	11987	3.00	8693	4.14	
60	11575	3.11	8329	4.32	
65	11170	3.22	7990	4.50	
70	10773	3.34	7674	4.69	
75	10385	3.46	7380	4.87	
80	10007	3.59	7107	5.06	
85	9640	3.73	6853	5.25	
90	9286	3.87	6618	5.44	
95	8945	4.02	6399	5.62	
200	4770	7.55	4453	8.09	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 400 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	14521	3.31	11620*	4.13	
30	14109	2.90	10900**	3.75	
35	13690	2.99	10430	3.92	
40	13273	3.08	9985	4.10	
45	12859	3.18	9565	4.28	
50	12449	3.28	9170	4.46	
55	12043	3.40	8800	4.65	
60	11644	3.51	8453	4.84	
65	11251	3.64	8129	5.03	
70	10867	3.76	7827	5.23	
75	10491	3.90	7545	5.42	
80	10126	4.04	7283	5.62	
85	9772	4.19	7038	5.81	
90	9431	4.34	6810	6.01	
95	9102	4.49	6598	6.20	
200	5008	8.18	4638	8.84	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 425 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14557	3.72	11672*	4.64
30	14104	3.27	10900**	4.24
35	13694	3.37	10452	4.42
40	13287	3.47	10029	4.60
45	12883	3.58	9630	4.80
50	12484	3.70	9254	4.99
55	12090	3.82	8901	5.19
60	11702	3.95	8570	5.39
65	11321	4.08	8261	5.59
70	10949	4.22	7971	5.80
75	10587	4.36	7701	6.00
80	10234	4.51	7448	6.20
85	9893	4.67	7212	6.41
90	9563	4.83	6992	6.61
95	9246	4.99	6785	6.81
200	5236	8.83	4815	9.61

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 450 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14585	4.17	11722*	5.19
30	14089	3.67	10900**	4.75
35	13688	3.78	10474	4.94
40	13291	3.89	10071	5.14
45	12897	4.01	9691	5.34
50	12509	4.14	9333	5.55
55	12126	4.27	8997	5.76
60	11750	4.41	8681	5.97
65	11382	4.55	8385	6.18
70	11022	4.70	8108	6.39
75	10672	4.85	7848	6.60
80	10331	5.01	7605	6.81
85	10002	5.18	7377	7.02
90	9684	5.35	7163	7.23
95	9378	5.52	6963	7.44
200	5454	9.51	4986	10.41

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 475 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14604	4.64	11770*	5.75
30	14064	4.10	10900**	5.29
35	13673	4.22	10494	5.50
40	13285	4.34	10111	5.71
45	12902	4.47	9749	5.92
50	12525	4.60	9408	6.13
55	12153	4.75	9087	6.35
60	11789	4.89	8786	6.57
65	11433	5.05	8502	6.79
70	11085	5.20	8236	7.01
75	10747	5.37	7987	7.23
80	10419	5.54	7752	7.45
85	10101	5.71	7532	7.66
90	9795	5.89	7325	7.88
95	9500	6.07	7130	8.10
200	5662	10.21	5150	11.23

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 500 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14615	5.13	11816*	6.35
30	14031	4.55	10900**	5.86
35	13649	4.68	10514	6.08
40	13272	4.82	10149	6.30
45	12900	4.95	9804	6.52
50	12533	5.10	9479	6.75
55	12173	5.25	9173	6.97
60	11820	5.41	8884	7.20
65	11476	5.57	8613	7.42
70	11140	5.74	8358	7.65
75	10814	5.91	8118	7.88
80	10497	6.09	7892	8.11
85	10191	6.27	7679	8.33
90	9896	6.46	7478	8.55
95	9611	6.65	7289	8.78
200	5861	10.93	5308	12.07

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 525 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14618	5.66	11859*	6.98
30	13990	5.04	10900**	6.47
35	13618	5.17	10533	6.69
40	13251	5.32	10185	6.92
45	12889	5.47	9856	7.15
50	12534	5.62	9546	7.38
55	12185	5.78	9254	7.62
60	11844	5.95	8978	7.85
65	11511	6.12	8718	8.09
70	11187	6.30	8473	8.32
75	10872	6.48	8241	8.56
80	10567	6.67	8023	8.79
85	10272	6.86	7818	9.02
90	9987	7.06	7623	9.25
95	9713	7.26	7440	9.48
200	6052	11.67	5461	12.94

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 550 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14615	6.21	11901*	7.63
30	13942	5.55	10900**	7.10
35	13580	5.69	10550	7.33
40	13224	5.85	10219	7.57
45	12873	6.01	9906	7.81
50	12529	6.17	9610	8.05
55	12191	6.34	9330	8.29
60	11862	6.52	9066	8.54
65	11540	6.70	8816	8.78
70	11227	6.89	8581	9.02
75	10924	7.08	8358	9.26
80	10630	7.28	8148	9.50
85	10345	7.48	7949	9.74
90	10071	7.68	7760	9.98
95	9806	7.89	7582	10.21
200	6234	12.43	5608	13.83

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 575 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14607	6.79	11941*	8.31
30	13889	6.09	10900**	7.76
35	13537	6.24	10567	8.00
40	13191	6.41	10251	8.25
45	12851	6.58	9952	8.50
50	12518	6.75	9670	8.75
55	12192	6.93	9402	9.00
60	11873	7.12	9149	9.25
65	11563	7.31	8910	9.50
70	11261	7.51	8683	9.74
75	10969	7.71	8469	9.99
80	10685	7.91	8265	10.24
85	10411	8.12	8073	10.48
90	10147	8.33	7890	10.73
95	9892	8.55	7717	10.97
200	6408	13.22	5750	14.74

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 600 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14593	7.41	11978*	9.03
30	13830	6.66	10900**	8.45
35	13489	6.82	10583	8.70
40	13154	7.00	10282	8.96
45	12824	7.18	9997	9.21
50	12502	7.36	9726	9.47
55	12187	7.55	9470	9.73
60	11880	7.75	9228	9.98
65	11580	7.95	8998	10.24
70	11290	8.16	8780	10.49
75	11008	8.36	8573	10.75
80	10735	8.58	8377	11.00
85	10471	8.79	8191	11.25
90	10216	9.01	8014	11.50
95	9970	9.24	7846	11.75
200	6574	14.03	5887	15.68

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 625 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14575	8.05	12014*	9.77
30	13767	7.25	10900**	9.17
35	13437	7.43	10598	9.43
40	13112	7.62	10311	9.69
45	12794	7.81	10038	9.96
50	12482	8.00	9780	10.22
55	12178	8.20	9534	10.48
60	11882	8.41	9302	10.75
65	11593	8.62	9081	11.01
70	11313	8.83	8871	11.27
75	11042	9.05	8672	11.53
80	10779	9.27	8482	11.79
85	10524	9.50	8302	12.05
90	10279	9.72	8131	12.30
95	10042	9.95	7967	12.55
200	6733	14.87	6019	16.64

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 650 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14553	8.72	12048*	10.53
30	13701	7.88	10900**	9.92
35	13381	8.07	10612	10.19
40	13067	8.27	10338	10.46
45	12759	8.47	10077	10.73
50	12459	8.67	9830	11.00
55	12165	8.88	9595	11.27
60	11880	9.10	9372	11.54
65	11602	9.31	9159	11.81
70	11332	9.54	8957	12.07
75	11070	9.76	8765	12.34
80	10817	9.99	8582	12.60
85	10572	10.22	8408	12.87
90	10336	10.46	8242	13.13
95	10107	10.70	8083	13.39
200	6885	15.73	6147	17.63

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 675 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14528	9.42	12080*	11.33
30	13633	8.55	10900**	10.69
35	13323	8.75	10625	10.97
40	13019	8.95	10363	11.25
45	12722	9.16	10115	11.53
50	12432	9.37	9878	11.80
55	12150	9.59	9652	12.08
60	11874	9.81	9438	12.36
65	11607	10.04	9234	12.63
70	11347	10.27	9039	12.90
75	11095	10.51	8854	13.18
80	10851	10.74	8677	13.44
85	10615	10.98	8508	13.71
90	10388	11.22	8347	13.98
95	10168	11.47	8193	14.24
200	7030	16.61	6270	18.64

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 700 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14500	10.15	12111*	12.16
30	13562	9.24	10900**	11.50
35	13263	9.45	10638	11.79
40	12970	9.66	10388	12.07
45	12683	9.88	10150	12.36
50	12404	10.10	9923	12.64
55	12131	10.33	9707	12.92
60	11866	10.56	9501	13.20
65	11608	10.80	9304	13.48
70	11358	11.04	9117	13.76
75	11116	11.28	8938	14.04
80	10881	11.52	8767	14.31
85	10654	11.77	8603	14.59
90	10435	12.02	8447	14.86
95	10223	12.27	8297	15.13
200	7168	17.52	6390	19.68

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 725 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14470	10.91	12140*	13.01
30	13490	9.97	10900**	12.34
35	13201	10.18	10649	12.63
40	12918	10.41	10411	12.92
45	12642	10.64	10183	13.21
50	12373	10.87	9965	13.50
55	12110	11.10	9758	13.79
60	11855	11.34	9560	14.08
65	11607	11.59	9371	14.36
70	11367	11.83	9190	14.65
75	11134	12.08	9017	14.93
80	10908	12.33	8852	15.21
85	10689	12.58	8693	15.49
90	10477	12.84	8542	15.76
95	10273	13.10	8396	16.04
200	7301	18.46	6505	20.73

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 750 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14438	11.70	12168*	13.89
30	13417	10.72	10900**	13.21
35	13138	10.95	10661	13.50
40	12866	11.18	10432	13.80
45	12600	11.42	10214	14.10
50	12341	11.66	10005	14.39
55	12088	11.91	9806	14.69
60	11843	12.15	9616	14.98
65	11604	12.40	9434	15.27
70	11373	12.66	9259	15.56
75	11148	12.91	9092	15.84
80	10931	13.17	8932	16.13
85	10720	13.43	8779	16.41
90	10516	13.69	8632	16.69
95	10319	13.95	8491	16.97
200	7427	19.42	6617	21.82

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 775 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14404	12.52	12194*	14.80
30	13344	11.51	10900**	14.10
35	13075	11.75	10671	14.41
40	12813	11.99	10453	14.71
45	12557	12.24	10243	15.01
50	12307	12.49	10043	15.31
55	12064	12.74	9852	15.61
60	11828	12.99	9669	15.91
65	11599	13.25	9493	16.20
70	11376	13.51	9325	16.50
75	11160	13.77	9164	16.79
80	10951	14.04	9009	17.08
85	10748	14.30	8860	17.37
90	10551	14.57	8718	17.65
95	10361	14.84	8581	17.94
200	7548	20.41	6725	22.93

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 800 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14370	13.38	12218*	15.74
30	13271	12.34	10900**	15.03
35	13012	12.58	10681	15.34
40	12760	12.83	10472	15.65
45	12513	13.09	10271	15.95
50	12273	13.34	10079	16.26
55	12039	13.60	9895	16.56
60	11812	13.87	9719	16.86
65	11592	14.13	9550	17.17
70	11377	14.40	9387	17.46
75	11169	14.67	9231	17.76
80	10968	14.94	9082	18.05
85	10773	15.21	8938	18.35
90	10583	15.48	8799	18.64
95	10400	15.76	8666	18.92
200	7664	21.42	6829	24.06

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 825 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14334	14.27	12242*	16.71
30	13199	13.19	10900**	15.99
35	12950	13.45	10691	16.30
40	12706	13.71	10490	16.61
45	12469	13.97	10298	16.93
50	12238	14.23	10113	17.24
55	12014	14.50	9936	17.54
60	11795	14.77	9766	17.85
65	11583	15.04	9603	18.16
70	11377	15.31	9447	18.46
75	11177	15.59	9296	18.76
80	10983	15.86	9151	19.06
85	10795	16.14	9011	19.35
90	10613	16.42	8877	19.65
95	10436	16.70	8748	19.94
200	7775	22.46	6931	25.22

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 850 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14298	15.18	12264*	17.71
30	13127	14.08	10900**	16.97
35	12887	14.35	10700	17.29
40	12654	14.61	10507	17.61
45	12426	14.88	10323	17.93
50	12204	15.15	10145	18.24
55	11988	15.43	9975	18.55
60	11778	15.70	9811	18.86
65	11573	15.98	9654	19.17
70	11375	16.26	9503	19.48
75	11183	16.54	9357	19.79
80	10996	16.82	9217	20.09
85	10815	17.11	9081	20.39
90	10639	17.39	8951	20.69
95	10469	17.67	8825	20.98
200	7881	23.52	7029	26.40

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 875 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14261	16.13	12285*	18.74
30	13057	15.01	10900**	17.99
35	12826	15.28	10708	18.31
40	12601	15.55	10523	18.63
45	12382	15.83	10346	18.95
50	12169	16.10	10176	19.27
55	11961	16.39	10012	19.59
60	11759	16.67	9854	19.91
65	11563	16.95	9702	20.22
70	11372	17.24	9556	20.53
75	11187	17.52	9415	20.84
80	11007	17.81	9279	21.15
85	10832	18.10	9148	21.45
90	10663	18.39	9022	21.75
95	10499	18.68	8900	22.06
200	7982	24.61	7124	27.61

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 900 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14225	17.11	12305*	19.80
30	12988	15.96	10900**	19.03
35	12766	16.24	10716	19.36
40	12550	16.52	10539	19.69
45	12339	16.80	10369	20.01
50	12134	17.09	10205	20.34
55	11934	17.38	10047	20.66
60	11740	17.66	9895	20.98
65	11551	17.95	9748	21.29
70	11368	18.25	9607	21.61
75	11189	18.54	9470	21.92
80	11016	18.83	9339	22.23
85	10848	19.12	9212	22.54
90	10685	19.42	9089	22.85
95	10526	19.71	8970	23.15
200	8079	25.73	7215	28.84

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 925 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14188	18.13	12324*	20.88
30	12920	16.95	10900**	20.11
35	12707	17.24	10723	20.44
40	12499	17.52	10553	20.77
45	12297	17.81	10390	21.10
50	12100	18.10	10232	21.43
55	11908	18.40	10080	21.75
60	11721	18.69	9933	22.08
65	11539	18.99	9791	22.40
70	11363	19.28	9655	22.72
75	11191	19.58	9523	23.03
80	11024	19.88	9395	23.35
85	10862	20.18	9272	23.66
90	10705	20.48	9153	23.97
95	10552	20.77	9037	24.28
200	8172	26.87	7305	30.10

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 950 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14152	19.17	12342*	22.00
30	12854	17.97	10900**	21.21
35	12649	18.27	10731	21.55
40	12450	18.56	10567	21.88
45	12255	18.86	10410	22.22
50	12066	19.15	10258	22.55
55	11881	19.45	10111	22.88
60	11702	19.75	9970	23.20
65	11527	20.05	9833	23.53
70	11357	20.35	9701	23.85
75	11192	20.66	9573	24.17
80	11031	20.96	9449	24.49
85	10875	21.26	9330	24.81
90	10723	21.56	9214	25.12
95	10575	21.87	9102	25.43
200	8260	28.04	7391	31.38

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 1590 ACSR (FALCON)
RTS (Rated Tensile Strength): 20%

RATED STRENGTH: 54,500 LBS.
ALLOWABLE AMPACITY: 1359A (NOMINAL)

RULING SPAN – 975 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14116	20.25	12359*	23.14
30	12790	19.03	10900**	22.35
35	12593	19.33	10737	22.69
40	12401	19.63	10580	23.02
45	12214	19.93	10429	23.36
50	12032	20.23	10282	23.70
55	11855	20.54	10141	24.03
60	11682	20.84	10004	24.36
65	11514	21.15	9872	24.69
70	11350	21.45	9744	25.01
75	11191	21.76	9620	25.34
80	11036	22.07	9501	25.66
85	10886	22.38	9385	25.98
90	10739	22.68	9272	26.30
95	10597	22.99	9163	26.61
200	8346	29.24	7475	32.69

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 1000 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	14081	21.35	12376*	24.31
30	12728	20.12	10900**	23.51
35	12539	20.42	10744	23.85
40	12354	20.73	10593	24.20
45	12175	21.04	10447	24.54
50	12000	21.34	10306	24.87
55	11829	21.65	10169	25.21
60	11663	21.96	10037	25.54
65	11501	22.27	9909	25.88
70	11343	22.59	9786	26.21
75	11190	22.90	9666	26.53
80	11041	23.21	9550	26.86
85	10895	23.52	9437	27.18
90	10754	23.83	9328	27.50
95	10616	24.14	9222	27.82
200	8427	30.47	7556	34.02

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 225 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1642	1.41	1427*	1.63
30	1540	0.73	1285**	0.88
35	1495	0.75	1238	0.91
40	1450	0.78	1191	0.95
45	1405	0.80	1145	0.98
50	1360	0.83	1100	1.02
55	1316	0.86	1055	1.07
60	1272	0.89	1011	1.11
65	1228	0.92	968	1.16
70	1185	0.95	926	1.22
75	1143	0.99	885	1.27
80	1101	1.02	845	1.33
85	1059	1.06	806	1.40
90	1019	1.11	769	1.46
95	979	1.15	734	1.54
200	416	2.71	334	3.38

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 250 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1661	1.72	1452*	1.97
30	1539	0.90	1285**	1.08
35	1494	0.93	1239	1.12
40	1449	0.96	1193	1.17
45	1405	0.99	1148	1.21
50	1361	1.02	1104	1.26
55	1317	1.06	1060	1.31
60	1274	1.09	1018	1.37
65	1231	1.13	976	1.43
70	1189	1.17	935	1.49
75	1147	1.21	896	1.55
80	1106	1.26	858	1.62
85	1066	1.30	821	1.69
90	1026	1.36	785	1.77
95	988	1.41	751	1.85
200	445	3.13	362	3.85

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 275 FEET				
		INITIAL		FINAL
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1680	2.06	1477*	2.35
30	1537	1.09	1285**	1.31
35	1492	1.13	1240	1.36
40	1448	1.16	1195	1.41
45	1405	1.20	1151	1.46
50	1361	1.24	1108	1.52
55	1319	1.28	1066	1.58
60	1276	1.32	1025	1.64
65	1234	1.36	984	1.71
70	1193	1.41	945	1.78
75	1152	1.46	907	1.85
80	1112	1.51	871	1.93
85	1073	1.57	835	2.01
90	1034	1.63	801	2.10
95	997	1.69	769	2.19
200	472	3.57	389	4.33

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 300 FEET				
		INITIAL		FINAL
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1699	2.43	1502*	2.75
30	1535	1.30	1285**	1.56
35	1491	1.34	1241	1.61
40	1448	1.38	1197	1.67
45	1405	1.43	1155	1.73
50	1362	1.47	1113	1.80
55	1320	1.52	1072	1.87
60	1278	1.57	1032	1.94
65	1237	1.62	993	2.02
70	1197	1.67	955	2.10
75	1157	1.73	919	2.18
80	1118	1.79	884	2.27
85	1080	1.85	850	2.36
90	1043	1.92	817	2.45
95	1006	1.99	786	2.55
200	498	4.02	415	4.83

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 325 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1719	2.82	1528*	3.17
30	1532	1.53	1285**	1.83
35	1489	1.58	1242	1.89
40	1446	1.62	1200	1.96
45	1404	1.67	1158	2.03
50	1362	1.73	1117	2.10
55	1321	1.78	1078	2.18
60	1280	1.84	1039	2.26
65	1240	1.90	1002	2.35
70	1201	1.96	965	2.44
75	1162	2.02	930	2.53
80	1124	2.09	896	2.62
85	1087	2.16	864	2.72
90	1051	2.24	833	2.82
95	1015	2.32	803	2.93
200	524	4.49	441	5.34

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 350 FEET				
INITIAL		FINAL		
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1739	3.23	1553*	3.62
30	1530	1.78	1285**	2.12
35	1487	1.83	1243	2.19
40	1445	1.89	1202	2.27
45	1404	1.94	1162	2.35
50	1363	2.00	1122	2.43
55	1322	2.06	1084	2.52
60	1282	2.13	1046	2.61
65	1243	2.19	1010	2.70
70	1205	2.26	975	2.80
75	1167	2.34	941	2.90
80	1130	2.41	909	3.00
85	1094	2.49	878	3.11
90	1059	2.57	848	3.22
95	1025	2.66	819	3.33
200	548	4.98	465	5.87

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 375 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1759	3.66	1578*	4.09
30	1527	2.05	1285**	2.44
35	1485	2.11	1244	2.52
40	1444	2.17	1204	2.60
45	1403	2.23	1165	2.69
50	1363	2.30	1127	2.78
55	1323	2.37	1090	2.87
60	1284	2.44	1054	2.97
65	1246	2.51	1019	3.07
70	1209	2.59	985	3.18
75	1172	2.67	953	3.29
80	1136	2.76	921	3.40
85	1101	2.84	891	3.51
90	1067	2.93	862	3.63
95	1034	3.03	835	3.75
200	571	5.49	488	6.42

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 400 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1779	4.12	1602*	4.58
30	1523	2.34	1285**	2.77
35	1482	2.40	1245	2.86
40	1442	2.47	1206	2.95
45	1402	2.54	1168	3.05
50	1363	2.61	1132	3.15
55	1324	2.69	1096	3.25
60	1286	2.77	1061	3.36
65	1249	2.85	1027	3.47
70	1212	2.94	995	3.58
75	1177	3.03	963	3.70
80	1142	3.12	933	3.82
85	1108	3.21	904	3.94
90	1075	3.31	876	4.06
95	1043	3.42	850	4.19
200	593	6.01	511	6.98

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 425 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	1798	4.60	1627*	5.09	
30	1520	2.64	1285**	3.13	
35	1480	2.72	1246	3.23	
40	1440	2.79	1209	3.33	
45	1401	2.87	1172	3.43	
50	1363	2.95	1136	3.54	
55	1325	3.03	1102	3.65	
60	1288	3.12	1068	3.76	
65	1252	3.21	1035	3.88	
70	1216	3.31	1004	4.00	
75	1181	3.40	974	4.13	
80	1147	3.50	945	4.26	
85	1114	3.61	917	4.39	
90	1082	3.71	890	4.52	
95	1051	3.82	864	4.65	
200	614	6.55	532	7.56	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 450 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	1818	5.11	1650*	5.63	
30	1516	2.97	1285**	3.51	
35	1477	3.05	1248	3.61	
40	1438	3.13	1211	3.72	
45	1400	3.22	1175	3.83	
50	1362	3.31	1141	3.95	
55	1325	3.40	1107	4.07	
60	1289	3.50	1075	4.19	
65	1254	3.59	1044	4.32	
70	1219	3.70	1013	4.45	
75	1186	3.80	984	4.58	
80	1153	3.91	956	4.72	
85	1121	4.02	929	4.85	
90	1090	4.14	903	4.99	
95	1060	4.25	879	5.13	
200	634	7.11	553	8.16	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 475 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1818	5.11	1650*	5.63
30	1516	2.97	1285**	3.51
35	1477	3.05	1248	3.61
40	1438	3.13	1211	3.72
45	1400	3.22	1175	3.83
50	1362	3.31	1141	3.95
55	1325	3.40	1107	4.07
60	1289	3.50	1075	4.19
65	1254	3.59	1044	4.32
70	1219	3.70	1013	4.45
75	1186	3.80	984	4.58
80	1153	3.91	956	4.72
85	1121	4.02	929	4.85
90	1090	4.14	903	4.99
95	1060	4.25	879	5.13
200	634	7.11	553	8.16

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 500 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1856	6.18	1697*	6.76
30	1508	3.69	1285**	4.33
35	1470	3.78	1250	4.45
40	1433	3.88	1215	4.58
45	1397	3.98	1182	4.71
50	1361	4.09	1150	4.84
55	1326	4.20	1119	4.98
60	1292	4.31	1088	5.11
65	1259	4.42	1059	5.26
70	1226	4.54	1031	5.40
75	1194	4.66	1004	5.55
80	1163	4.78	978	5.69
85	1133	4.91	952	5.84
90	1104	5.04	928	6.00
95	1076	5.17	905	6.15
200	673	8.28	593	9.40

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 525 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1874	6.74	1719*	7.35
30	1504	4.08	1285**	4.77
35	1467	4.18	1251	4.91
40	1431	4.29	1218	5.04
45	1395	4.40	1185	5.18
50	1361	4.51	1154	5.32
55	1327	4.63	1124	5.46
60	1293	4.74	1095	5.61
65	1261	4.87	1066	5.75
70	1229	4.99	1039	5.90
75	1198	5.12	1013	6.06
80	1168	5.25	988	6.21
85	1139	5.39	964	6.37
90	1111	5.52	940	6.53
95	1083	5.66	918	6.69
200	691	8.89	612	10.04

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 550 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1893	7.33	1741*	7.97
30	1500	4.49	1285**	5.24
35	1464	4.60	1252	5.38
40	1428	4.71	1220	5.52
45	1394	4.83	1189	5.67
50	1360	4.95	1158	5.81
55	1327	5.08	1129	5.96
60	1294	5.20	1101	6.12
65	1263	5.33	1074	6.27
70	1232	5.47	1047	6.43
75	1202	5.60	1022	6.59
80	1173	5.74	998	6.75
85	1145	5.88	974	6.92
90	1117	6.03	952	7.08
95	1091	6.17	930	7.24
200	709	9.51	630	10.71

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 575 FEET				
		INITIAL		FINAL
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1910	7.94	1762*	8.61
30	1495	4.92	1285**	5.73
35	1460	5.04	1253	5.87
40	1425	5.16	1222	6.02
45	1392	5.29	1192	6.18
50	1359	5.42	1163	6.33
55	1327	5.55	1134	6.49
60	1295	5.68	1107	6.65
65	1265	5.82	1081	6.81
70	1235	5.96	1055	6.98
75	1206	6.10	1031	7.14
80	1178	6.25	1007	7.31
85	1150	6.40	984	7.48
90	1124	6.55	963	7.65
95	1098	6.70	942	7.82
200	725	10.16	648	11.38

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 600 FEET				
		INITIAL		FINAL
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1928	8.57	1783*	9.26
30	1490	5.38	1285**	6.24
35	1456	5.50	1254	6.39
40	1423	5.63	1224	6.55
45	1390	5.77	1195	6.71
50	1358	5.90	1167	6.87
55	1327	6.04	1139	7.04
60	1296	6.18	1113	7.20
65	1266	6.33	1087	7.37
70	1237	6.48	1063	7.54
75	1209	6.63	1039	7.72
80	1182	6.78	1016	7.89
85	1155	6.94	994	8.06
90	1130	7.10	973	8.24
95	1105	7.26	953	8.42
200	742	10.82	665	12.08

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 625 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	1945	9.21	1803*	9.94	
30	1486	5.85	1285**	6.77	
35	1452	5.99	1255	6.93	
40	1420	6.12	1226	7.09	
45	1388	6.27	1198	7.26	
50	1357	6.41	1171	7.43	
55	1326	6.56	1144	7.60	
60	1297	6.71	1119	7.78	
65	1268	6.86	1094	7.95	
70	1240	7.01	1070	8.13	
75	1213	7.17	1047	8.31	
80	1186	7.33	1025	8.49	
85	1160	7.50	1004	8.67	
90	1136	7.66	983	8.85	
95	1111	7.83	963	9.03	
200	757	11.50	681	12.79	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 650 FEET		INITIAL		FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)	
30	1961	9.88	1823*	10.63	
30	1481	6.35	1285**	7.32	
35	1449	6.49	1256	7.49	
40	1417	6.64	1228	7.66	
45	1386	6.79	1201	7.84	
50	1356	6.94	1174	8.01	
55	1326	7.09	1149	8.19	
60	1297	7.25	1124	8.37	
65	1269	7.41	1100	8.55	
70	1242	7.57	1077	8.73	
75	1216	7.74	1055	8.92	
80	1190	7.91	1034	9.10	
85	1165	8.07	1013	9.29	
90	1141	8.25	993	9.48	
95	1118	8.42	974	9.66	
200	772	12.19	697	13.52	

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 675 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1978	10.57	1842*	11.35
30	1476	6.87	1285**	7.89
35	1445	7.02	1257	8.07
40	1414	7.17	1230	8.25
45	1384	7.33	1203	8.43
50	1354	7.49	1178	8.61
55	1326	7.65	1153	8.80
60	1298	7.82	1129	8.98
65	1271	7.98	1106	9.17
70	1244	8.15	1084	9.36
75	1219	8.32	1063	9.55
80	1194	8.50	1042	9.74
85	1170	8.67	1022	9.93
90	1146	8.85	1002	10.13
95	1124	9.03	984	10.32
200	787	12.91	712	14.26

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 700 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	1993	11.28	1861*	12.08
30	1472	7.41	1285**	8.49
35	1441	7.57	1258	8.67
40	1411	7.73	1232	8.86
45	1382	7.90	1206	9.05
50	1353	8.06	1181	9.24
55	1325	8.23	1158	9.43
60	1298	8.40	1135	9.62
65	1272	8.58	1112	9.81
70	1247	8.75	1091	10.01
75	1222	8.93	1070	10.20
80	1198	9.11	1050	10.40
85	1174	9.29	1030	10.60
90	1152	9.48	1011	10.79
95	1130	9.66	993	10.99
200	801	13.64	727	15.03

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 725 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2009	12.01	1880*	12.83
30	1467	7.98	1285**	9.11
35	1437	8.14	1259	9.30
40	1408	8.31	1233	9.49
45	1380	8.48	1209	9.68
50	1352	8.66	1185	9.88
55	1325	8.83	1162	10.08
60	1299	9.01	1139	10.27
65	1273	9.19	1118	10.47
70	1249	9.38	1097	10.67
75	1224	9.56	1077	10.87
80	1201	9.75	1057	11.08
85	1178	9.93	1038	11.28
90	1156	10.12	1020	11.48
95	1135	10.31	1003	11.68
200	814	14.39	742	15.81

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 750 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2024	12.75	1897*	13.61
30	1462	8.57	1285**	9.75
35	1433	8.74	1260	9.95
40	1405	8.91	1235	10.14
45	1377	9.09	1211	10.34
50	1351	9.27	1188	10.54
55	1325	9.46	1166	10.75
60	1299	9.64	1144	10.95
65	1274	9.83	1123	11.16
70	1250	10.02	1103	11.36
75	1227	10.21	1083	11.57
80	1204	10.40	1065	11.77
85	1182	10.60	1046	11.98
90	1161	10.79	1029	12.19
95	1140	10.99	1011	12.39
200	828	15.16	756	16.60

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 775 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2039	13.52	1915*	14.40
30	1457	9.18	1285**	10.41
35	1429	9.36	1260	10.61
40	1402	9.54	1237	10.82
45	1375	9.73	1214	11.02
50	1349	9.91	1191	11.23
55	1324	10.10	1170	11.44
60	1299	10.29	1149	11.65
65	1275	10.49	1129	11.86
70	1252	10.68	1109	12.07
75	1230	10.88	1090	12.28
80	1208	11.08	1072	12.49
85	1186	11.28	1054	12.70
90	1166	11.48	1037	12.91
95	1146	11.68	1020	13.12
200	840	15.94	769	17.42

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 800 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2053	14.31	1932*	15.21
30	1453	9.81	1285**	11.09
35	1426	10.00	1261	11.30
40	1399	10.19	1238	11.51
45	1373	10.38	1216	11.72
50	1348	10.57	1194	11.94
55	1323	10.77	1173	12.15
60	1300	10.97	1153	12.36
65	1276	11.17	1134	12.58
70	1254	11.37	1115	12.79
75	1232	11.57	1096	13.01
80	1211	11.78	1078	13.23
85	1190	11.98	1061	13.44
90	1170	12.19	1044	13.66
95	1150	12.39	1028	13.87
200	852	16.75	782	18.25

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 825 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2067	15.12	1948*	16.04
35	1448	10.47	1285**	11.80
40	1422	10.66	1262	12.01
45	1396	10.86	1240	12.23
50	1371	11.06	1218	12.45
55	1347	11.26	1197	12.66
60	1323	11.46	1177	12.88
65	1300	11.66	1157	13.10
70	1277	11.87	1138	13.32
75	1255	12.08	1120	13.54
80	1234	12.29	1102	13.76
85	1214	12.49	1085	13.98
90	1193	12.71	1068	14.20
95	1174	12.92	1052	14.42
200	1155	13.13	1036	14.64

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 850 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2080	15.94	1964*	16.89
30	1444	11.15	1285**	12.52
35	1418	11.35	1263	12.75
40	1393	11.55	1241	12.97
45	1369	11.76	1220	13.19
50	1345	11.96	1200	13.41
55	1322	12.17	1181	13.64
60	1300	12.38	1161	13.86
65	1278	12.59	1143	14.08
70	1257	12.81	1125	14.31
75	1236	13.02	1108	14.53
80	1216	13.23	1091	14.76
85	1197	13.45	1075	14.98
90	1178	13.67	1059	15.21
95	1160	13.88	1044	15.43
200	875	18.41	807	19.97

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

Table with columns: RULING SPAN – 875 FEET, INITIAL, FINAL. Sub-headers: AMB. TEMP. DEG.-F, TENSION (LBS.), SAG (FT.). Rows show data for temperatures from 30 to 200 degrees Fahrenheit.

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

Table with columns: RULING SPAN – 900 FEET, INITIAL, FINAL. Sub-headers: AMB. TEMP. DEG.-F, TENSION (LBS.), SAG (FT.). Rows show data for temperatures from 30 to 200 degrees Fahrenheit.

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor
**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



Overhead Transmission Standards

CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 925 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2119	18.54	2010*	19.55
30	1431	13.32	1285**	14.84
35	1407	13.54	1265	15.07
40	1385	13.76	1245	15.31
45	1363	13.99	1226	15.55
50	1341	14.21	1208	15.78
55	1320	14.44	1190	16.02
60	1300	14.66	1173	16.26
65	1280	14.89	1156	16.50
70	1261	15.12	1140	16.73
75	1242	15.35	1124	16.97
80	1224	15.58	1108	17.21
85	1206	15.81	1093	17.45
90	1189	16.04	1079	17.68
95	1172	16.27	1065	17.92
200	907	21.04	842	22.68

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 950 FEET		INITIAL	FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2131	19.45	2024*	20.48
30	1427	14.09	1285**	15.65
35	1404	14.32	1266	15.89
40	1382	14.55	1247	16.13
45	1361	14.78	1228	16.37
50	1340	15.01	1210	16.62
55	1320	15.24	1193	16.86
60	1300	15.47	1176	17.10
65	1281	15.70	1160	17.34
70	1262	15.94	1144	17.58
75	1244	16.17	1129	17.83
80	1226	16.40	1114	18.07
85	1209	16.64	1099	18.31
90	1192	16.87	1085	18.55
95	1176	17.11	1071	18.79
200	917	21.96	853	23.62

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor



CONDUCTOR SAG & TENSION DATA

BARE ALUMINUM – 3#6 AW (ALUMOWELD) RATED STRENGTH: 10,280 LBS.
RTS (Rated Tensile Strength): 12.5% SHEILD WIRE

RULING SPAN – 975 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2143	20.38	2038*	21.43
30	1423	14.89	1285**	16.49
35	1401	15.12	1266	16.73
40	1379	15.35	1248	16.98
45	1359	15.59	1230	17.22
50	1339	15.82	1213	17.47
55	1319	16.06	1196	17.72
60	1300	16.30	1180	17.96
65	1281	16.53	1164	18.21
70	1263	16.77	1148	18.45
75	1245	17.01	1133	18.70
80	1228	17.25	1119	18.94
85	1211	17.49	1105	19.19
90	1195	17.73	1091	19.43
95	1179	17.97	1077	19.68
200	927	22.89	864	24.58

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

RULING SPAN – 1000 FEET				
INITIAL			FINAL	
AMB. TEMP. DEG.-F	TENSION (LBS.)	SAG (FT.)	TENSION (LBS.)	SAG (FT.)
30	2154	21.32	2052*	22.39
30	1419	15.71	1285**	17.34
35	1397	15.94	1267	17.59
40	1377	16.18	1249	17.84
45	1357	16.42	1232	18.09
50	1337	16.66	1215	18.34
55	1318	16.90	1199	18.60
60	1300	17.15	1183	18.85
65	1282	17.39	1167	19.10
70	1264	17.63	1152	19.35
75	1247	17.87	1138	19.59
80	1230	18.12	1124	19.84
85	1214	18.36	1110	20.09
90	1198	18.60	1096	20.34
95	1183	18.85	1083	20.58
200	936	23.84	874	25.55

*NESC Light Zone Load Condition Based on 9.0 Psf Wind & 0.05 Lb/F K-Factor

**Design Condition and All Others Based on 0.0 Psf Wind & 0.00 Lb/F K-Factor

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