

The results from the UTS test of the General Cable ACSS connector-conductor samples are presented in Table 6-2. The compression dead-end and compression splice samples installed on ACSS MA5 Squab conductor, as evaluated, met the specified acceptance criteria in ANSI C119.4 for tensile strength.

Table 6-2. General Cable ACSS connector-conductor system UTS test results

No.	Sample Description	Test Results		
		UTS (lbs)	UTS (% Conductor RBS)	Failure Location
1	Dead-end 1	25,426	101.3	16 in from mouth of DE
2	Dead end 2	24,627	96.9	10 in from epoxy
3	Splice 1	24,299	98.2	6 ft from epoxy
4	Splice 2	25,293	100.8	10 in from splice

## LS Cable

Dead-end connector and splice-connector systems were tensile tested for the LS Cable ACSS conductor to ensure that the ultimate tensile strength measured for each system met or exceeded 95% of the rated breaking strength of the LS Cable ACSS conductor (31,682 lbs).

dead-end and splice compression connector assemblies were utilized for these tests. The compression connectors were all manufactured by AFL and were sized appropriately for their respective conductors (see Table 6-3).

Table 6-3. LS Cable ACSS connector specifications

Conductor Manufacturer	LS Cable & System Ltd.	
Conductor Geometry	ACSS/TW 834.4 kcmil	
Nominal Outer Diameter	1.031 in (26.20 mm)	
Construction	Twenty-five (25),1350-O Temper trapezoidal aluminum wires (2 layers) over seven (7) 3.50 mm round high strength steel wires	
Rated Breaking Strength	33,350 lb.	
dead-end Part No.	Aluminum Body	8130.109CHT/UHS
	Steel Eye	9414.432
Splice Part No.	Aluminum Body	8030.109HT/UHS
	Steel Sleeve	4014.432

The samples were individually loaded into the test frame and pre-loaded to 2% of the RBS of the LS Cable ACSS conductor (667 lbs or 2.97 kN). A loading rate of 5,003 lbs/min was used for the LS Cable ACSS connector-conductor tests.

The tension applied to the systems over the test time is plotted in Figure 6-2.

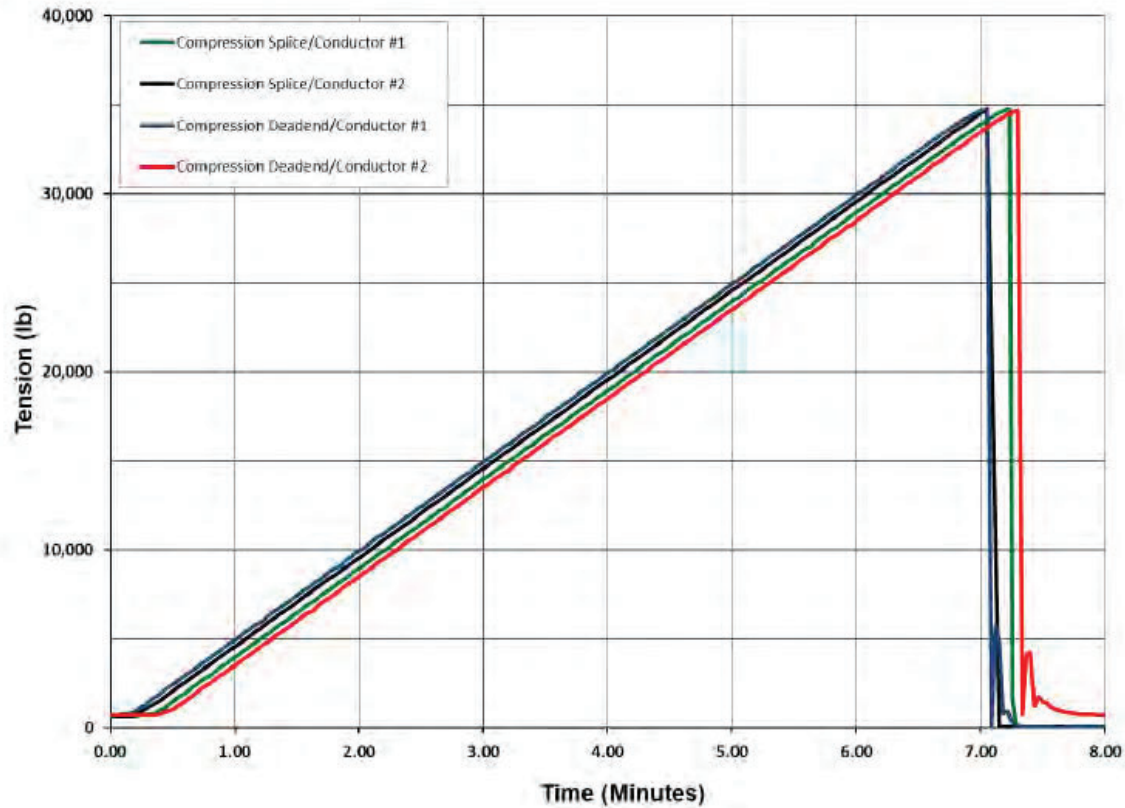


Figure 6-2. LS Cable ACSS connector-conductor system UTS test: tension vs. time

The results from the UTS test of the LS Cable ACSS connector-conductor samples are presented in Table 6-4. The compression dead-end and compression splice samples installed on LS ACSS 834.4 kcmil conductor, as evaluated, met the specified acceptance criteria in ANSI C119.4 for tensile strength.

Table 6-4. LS Cable ACSS connector-conductor system UTS test results

No.	Sample Description	Test Results		
		UTS (lbs)	UTS (% Conductor RBS)	Failure Location
1	Dead-end 1	34,716	104.1	12 ft from epoxy
2	Dead-end 2	34,686	104.1	15 ft from epoxy
3	Splice 1	34,748	104.2	7 in from mouth of splice
4	Splice 2	34,809	104.3	8 ft from epoxy