

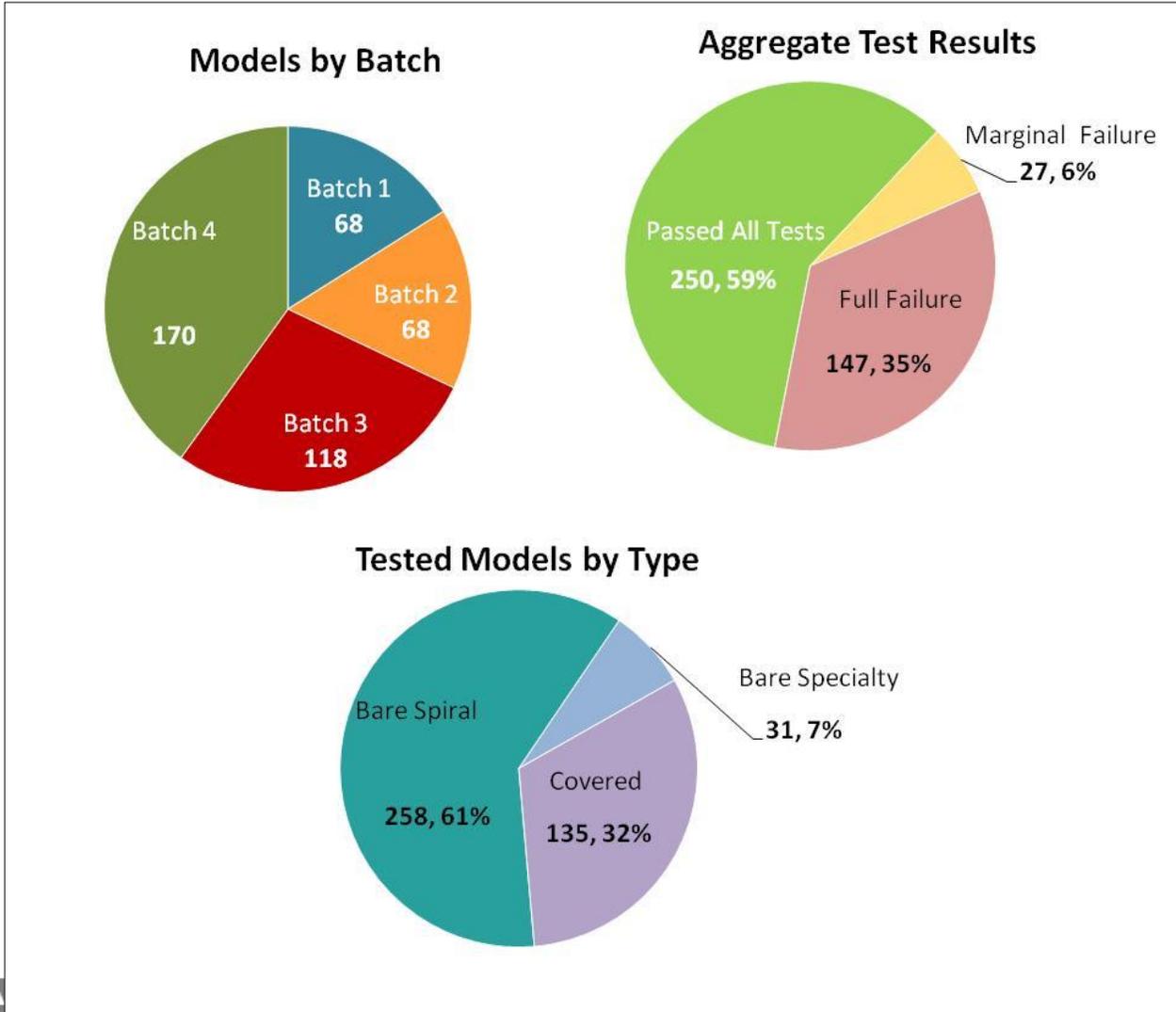


Overview of CFL Verification Testing Results Jan 2010-Apr 2014

ENERGY STAR Road mapping call on future
verification testing of lamps: July 31st 2014

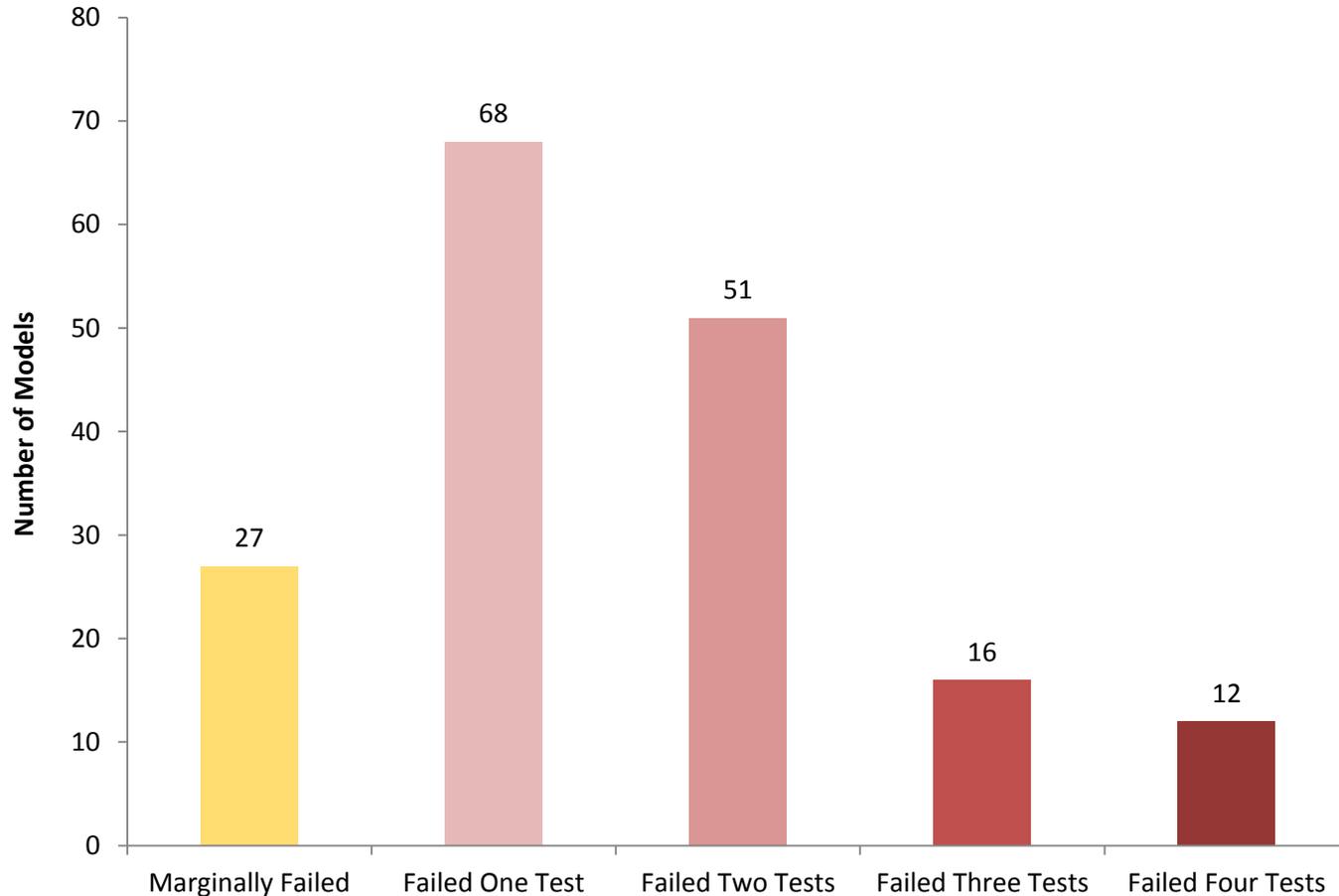
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CFL Verification Testing Summary



- 424 models tested from Jan 2010-Apr 2014
- Note products could have experienced a marginal failure on one test and a full failure on a another test so they count as full failures

Products failing one or more tests

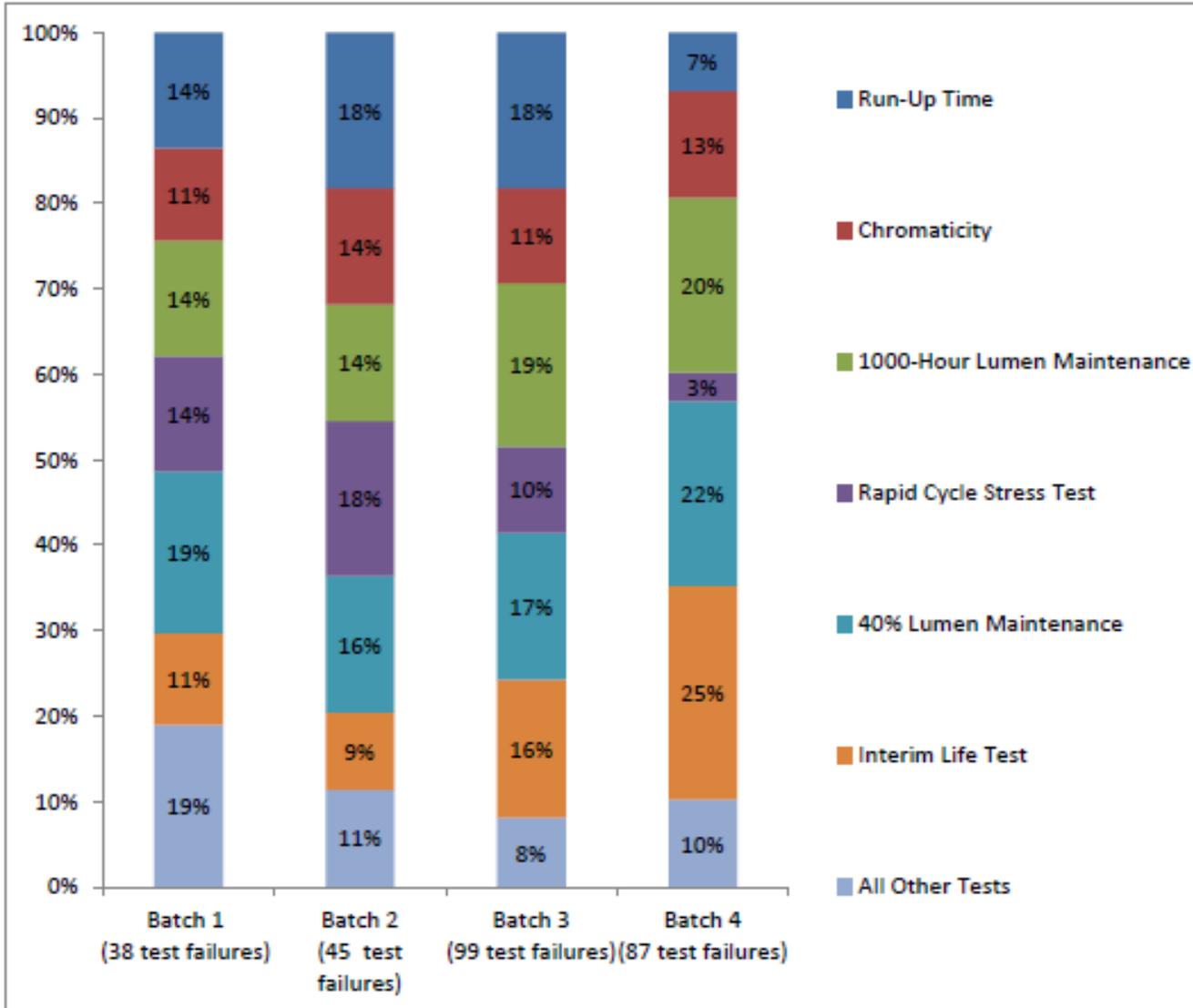


- Marginal failure was defined in CFL 4.0 as one sample exceed the allowable failure rate for one test.
 - E.g. 2/6 samples failed rapid cycle when the spec requires 5/6 to pass
 - Marginal failure triggers elective retesting.

Summary of failures by test & batch



Figure 31: Failures by Test, Batches 1 through 4: All Models



- All other tests include
 - Start time
 - Power factor
 - Efficacy
 - CRI
 - ETLOR
- Very low failure rates were observed for these tests



Interim Life Failures



		# of models		
	# Models Tested	Passed	Marginal Failure	Full Failure
All Models	424	363	14	47
Bare Spiral	258	226	10	22
Bare Specialty	31	27	1	3
Covered	135	110	3	22

The interim life test looks at how many units are operational at 40% of the lamp's rated lifetime claim. Note 1 unit failure is considered a pass and 2 unit failures is a marginal failure which allows for elective retesting.

Interim Life Failure Results



- Of the 61 models that failed interim life 27 fully failed only this test
 - 9 failed interim life and marginally failed another test
- We've had sample sets with 0 surviving lamps
 - (0 out of 20 in batch 4)
- 20 models had 50% or less of their samples survive
- 12 models had 25% or less of their samples survive