General Test Conditions

All performance tests will be made within an environmental chamber at the specified conditions.

Each freezer will be connected to a regulated 120 VAC supply through a wattage transducer.

The freezer compartment will be filled with 10 oz. packages of frozen chopped spinach. As many packages as possible will be placed in the freezer without removing any shelves, baskets or trays and without packing the packages in so tightly as to block air circulation.

Performance Tests

Temperature and Energy Consumption Measurements

A computer controlled data acquisition system is used to measure and record the temperature at fifteen points (nine in the case of tall and cube compact freezers) in each of the freezers via thermocouples. The computer system will simultaneously measure and record energy consumption data for each station.

Energy efficiency: The values from the yellow EnergyGuide stickers are used in conjunction with usable capacity (which is measured in-house) to calculate the Energy efficiency.

Thermostat control: This assesses the ability of the Freezer's thermostat to 1) achieve the desired initial set temperatures following manufacturer's recommendations. 2) keep internal temperatures constant despite large changes in room temperature.

Temperature uniformity: This performance test is based on how well a model minimizes warm and cold spots within the freezer.

Power outage: Power outage is the freezer's ability to stay cold after the electricity goes out.

Noise. Noise level is measured when the compressor starts up and during steady running. Subjective judgments by a panel of listeners supplement noise-meter readings.

Useful Capacities

Usable capacity is the volume, in cubic feet, of usable interior space, based on our measurements.
Exterior Dimensions

Height, width, and depth rounded up to the nearest inch.