



Data Collection Worksheet

Please Note: The Data Collection Worksheet (DCW) is a tool to aid integration of a PhenX protocol into a study. The PhenX DCW is not designed to be a data collection instrument. Investigators will need to decide the best way to collect data for the PhenX protocol in their study. Variables captured in the DCW, along with variable names and unique PhenX variable identifiers, are included in the PhenX Data Dictionary (DD) files.

Cigarette Length:

Cigarette Length (Brown & Williamson)

Ten cigarettes, laid mouth to butt, are placed in a Cerulean cd2 express or Borgwaldt S10. The total length of the ten cigarettes is determined. The filters from each cigarette are removed, and the total length of ten filters laid end to end is determined. The average length is calculated by dividing the total length by the number measured (10). Results are measured in millimeters.

Circumference

Cigarette Circumference (Brown & Williamson)

A Cerulean cd2 express or Borgwaldt S10 is used for the circumference determination. Samples consist of 20 cigarettes, with each cigarette being tested individually. The AHL transports individual cigarettes to the testing station. The second module determines cigarette circumference by the linear displacement of a tape gauge that encircles the cigarette. Circumference results are measured to the one hundredth of a millimeter.

Tobacco Weight

Tobacco Weight (Philip Morris)

Tobacco weight is determined using an indirect method. A group of 15 cigarettes is weighed and the composite weight recorded. The paper and filters of the corresponding 15 cigarettes are then removed and weighed and the composite weight recorded. The tobacco weight is calculated by difference. The average tobacco weight per cigarette is obtained by dividing the difference by 15. Results are reported in grams.

Filter Type

Filter Type (Philip Morris)

Filter type is determined through visual or chemical techniques. After outer papers are removed, a visual examination is conducted. If a visual determination cannot be made, the sample is placed in acetone or sulfuric acid. Cellulose acetate dissolves in acetone and paper dissolves in sulfuric acid. Only 1 cigarette is required per determination.

Filter Ventilation

Tip Dilution (Philip Morris)

Ventilation is the percentage of total air flow drawn through the sample via the sides of the filter generally entering through perforations in the cigarette tipping paper. The Borgwaldt PV-10 is used to perform the measurement. Results represent the average filter tip ventilation of 15 cigarettes and are reported in percent (%).

Protocol source: <https://www.phenxtoolkit.org/protocols/view/730501>