The folders Exp1, Exp2, and Exp3 pertain to Experiment 1, Experiment 2, and Experiment 3, respectively. Each of the folders contains a text file whose name starts with "participant" for each observer. Each row in these text files corresponds to one trial of the experiment. The columns in each text file are named Subject, Trial, TrialCondition, Group, Block, Condition, ComparisonPosition, ResponseSide, Response, DistanceWhitePoint (in this order from left to right). Their meaning is as follows:

Subject: This is an arbitrary number that was assigned to an observer so that he or she can be distinguished from other observers.

Trial: This is the number of the trial.

TrialCondition: Each of the three experiments consists of several experimental conditions. These experimental conditions are visible in the column "Condition" and described in more detail further down below. The number in the column "TrialCondition" indicates how often an observer has already gone through the respective experimental condition. A value of "1" means that the trial was the first trial in which an observer was exposed to the respective experimental condition.

Group: As far as Experiment 1 and 2 are concerned, this variable indicates with which background luminance an observer started and ended the experiment. For instance, "bg120050st070" means that the observer started the experiment with a background luminance of 120 cd/m^2 and ended it with a background luminance of 50 cd/m^2, while the luminance of the standard remained at 70 cd/m^2. As far as Experiment 3 is concerned, this variable does not provide any information with regard to the background luminance the experiment started or ended with. If the expression in the "Group" variable is preceded by the letter "p", then this indicates that the corresponding trial was a practice trial.

Block: This variable indicates luminance of the background on a given trial. For instance, "bg120st070" means that the background had a luminance of 120 cd/m^2 while the standard and the comparison patch had a luminance of 70 cd/m^2.

Condition: This variable indicates which experimental condition an observer was exposed to in a given trial. The value after the word "Line" indicates from which color direction the comparison stimulus was sampled. For instance, "Line06" means that the comparison stimulus was sampled from comparison direction 6. The number after the letter "T" indicates which standard was presented in the respective condition. "1" refers to reddish standard, "2" to the bluish standard, and "3" to the greenish standard. Specifications of the comparison directions and the standards in terms of CIE 1931 xyY space can be found in Table 1 of "An evaluation of different measures of color saturation".

ComparisonPosition: This variable indicates whether the comparison stimulus was shown on the left (l) or the right (r) of the screen. If the comparison patch was shown on the left, then the standard patch was shown on the right, and vice versa.

ResponseSide: This variable indicates which of the two buttons was pressed by the observer. If the left button was pressed, then "ResponseSide" is "l", if the right button was pressed, then "ResponseSide" is "r".

Response: If the comparison patch was perceived as more saturated than the standard patch (i.e. the location at which the comparison patch was presented was chosen by a corresponding button press), then this variable is "1", otherwise it is "0".

DistanceWhitePoint: DistanceWhitePoint indicates the distance of the comparison color from the white point on the comparison direction from which it was sampled, relative to the distance of the direction's endpoint. For instance, a value of "0.85" indicates that distance of the color from the white point is 85% of the distance of the direction's endpoint to the white point. Together with the specifications of the endpoints in terms of CIE 1931 xyY coordinates (cf. Table 1), the distance from the white point allows you to compute the CIE 1931 xyY coordinates of the comparison patch that was sampled from the corresponding comparison direction.

Let us clarify these explanations by means of an example. Consider the row

"1 6 1 bg010045st030 bg010st030 Line07T2 r l 0 0.178178".

This row indicates that, in the sixth trial of the experiment, the color of the comparison patch was sampled from comparison direction 7. The distance of this color to the white point corresponded to about 17% of the distance that the endpoint of comparison direction 7 has to the white point. The comparison patch was shown on the right side of the screen, while the bluish standard 2 was shown on the left side. The luminance of both patches was 30 cd/m², while background luminance was 10 cd/m². Observer 1 compared a patch sampled from comparison direction 7 against standard 2 for the first time, and judged the comparison patch to be less saturated than the standard patch.