

INFORMED CONSENT FORM

Project Title: *Visual perception of color quality of light sources*

Principal Investigator: Yoshi Ohno, PhD, 301-975-2321

Research Study Description: The data from this research project will be used for developing improved scientific color definitions that agree better with perception, and also for developing new metrics for color quality of LED lighting sources. Prior to participating in this study, and solely for the purpose of this research experiment, your color vision will be tested with a simple color-deficiency test. If we find you have color deficiency, your participation will conclude at that point. You also must have normal vision or corrected to normal vision (good enough to get a driver's license).

This research will take place at the National Institute of Standards and Technology's Gaithersburg campus (Room B307 of Building 220). You will sit in front of an experimental viewing booth and will look at color samples of three different colors under various lighting. We will present several pairs of slightly different white light, and ask you to answer under which light the sample colors on the left side and right side of the booth appear the same or closest. The presented lights are all at normal brightness levels for typical offices or homes. We will repeat such experimental runs for several different illumination conditions in one session, which will take about 30 min. There will be three sessions in total, which will take about two hours for each participant (including breaks in between). Before starting experiment, we will give you instructions and let you practice a few experimental runs.

Your identity will be protected to the extent permitted by law, including the Freedom of Information Act. Members of the NIST Institutional Review Board, appropriate NIST researchers, and other appropriate Federal employees may review the records of this study. The data will be used by NIST researchers as herein described. All of the data will be recorded only by an assigned number, without identifiers, and will not be linked back to your identity in any way.

There are no risks or costs to you as a subject in this experiment. You will also not benefit by volunteering to participate in this experiment, except for experiencing the state-of-the-art lighting experiment facility and gaining the satisfaction of contributing to this scientific pursuit. Your data will be recorded and reported by a pseudo-randomly assigned subject number. It is possible your experimental responses may be shown in scientific presentations and/or publications. However, identifying information will not be collected and, therefore, not included in any presentations of the data. No key will be kept that will link individual data to any personal or demographic information.

If you have questions about this research or your rights as a participant, you may contact the Principal Investigator (PI), Yoshi Ohno, at 301-975-2321. If you have questions about your rights as a participant in this study, or have complaints, concerns or issues you want to discuss with someone outside the research team, contact the Human Subjects Protection Office at (301) 975-5445, or HSPO@nist.gov.

Participation in this experiment is voluntary and you may choose not to participate or to withdraw from participating at any time for any reason without penalty. In order to withdraw

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from this experiment early, just tell the PI, in person or by phone, that you would like to terminate your involvement. If you choose not to participate or to discontinue your participation at any time, your decision will not result in any penalty or loss of benefits to which you are otherwise entitled.

There will be 96 subjects in total involved in these experiments conducted over a period of four to five years for the project, "*Visual perception of color quality of light sources.*"

Any research-related injury during the study should be reported to Yoshi Ohno at 301-975-2321, yoshi.ohno@nist.gov.

"I have read the above description of this research project. I have also spoken to the NIST PI, who answered any questions I had about the project. I acknowledge that I have received a copy of this form. I agree to participate in this research and I understand that I may withdraw, without penalty, at any time."

Subject's printed name

Subject's signature

Date