# Proceedings of the Iowa Academy of Science

Volume 47 | Annual Issue

Article 83

1940

# An Apparatus for Measuring Tolerance to Light and Visual Efficiency Under Different Conditions of Illumination

Glenn O. Martinson Iowa State College

Let us know how access to this document benefits you

Copyright ©1940 lowa Academy of Science, Inc. Follow this and additional works at: https://scholarworks.uni.edu/pias

## **Recommended Citation**

Martinson, Glenn O. (1940) "An Apparatus for Measuring Tolerance to Light and Visual Efficiency Under Different Conditions of Illumination," *Proceedings of the Iowa Academy of Science*, *47(1)*, 302-302. Available at: https://scholarworks.uni.edu/pias/vol47/iss1/83

This Research is brought to you for free and open access by the IAS Journals & Newsletters at UNI ScholarWorks. It has been accepted for inclusion in Proceedings of the Iowa Academy of Science by an authorized editor of UNI ScholarWorks. For more information, please contact scholarworks@uni.edu.

Offensive Materials Statement: Materials located in UNI ScholarWorks come from a broad range of sources and time periods. Some of these materials may contain offensive stereotypes, ideas, visuals, or language.

Martinson: An Apparatus for Measuring Tolerance to Light and Visual Efficien

302

IOWA ACADEMY OF SCIENCE [Vol. XLVII

in one class in biology and the revised test. The results are offered only as preliminary to a more complete study being carried out.

DEPARTMENT OF PSYCHOLOGY, IOWA STATE COLLEGE, Ames, IOWA.

### AN APPARATUS FOR MEASURING TOLERANCE TO LIGHT AND VISUAL EFFICIENCY UNDER DIF-FERENT CONDITIONS OF ILLUMINATION

#### GLENN O. MARTINSON

Illumination in relation to automobile driving is considered one of the most important problems of highway safety. Because of contrast between source of light and background, lights which give sufficient illumination are considered blinding. An apparatus is described which makes possible the accurate measurement of tolerance to light under different atmospheric conditions.

Calibration of the light falling on the test object and the light impinging on the retina makes possible measurement of the optimal conditions of illumination under different degrees of darkness. The light measurements are made by electrometric methods.

DEPARTMENT OF PSYCHOLOGY, IOWA STATE COLLEGE,

Ames, Iowa.

#### A STUDY OF COMPENSATION

#### MIRIAM G. ZUGMEIER AND A. R. LAUER

Although pages have been written in psychological text books on compensation, a survey of the literature shows an extremely meagre amount of experimental data. The present study is an attempt to formulate some of the problems of compensation into experimental form.

Forty subjects were given a series of laboratory tests in which accuracy and speed were compared under normal conditions and under conditions of distraction. Thirty-one of the same subjects were given a written test of the questionnaire type which was