UNIVERSITI TEKNOLOGI MARA

COMPARISON OF CONTRAST SENSITIVITY BETWEEN FACT SCREEN TEST, ILLUMINATED AND NON-ILLUMINATED CSV-1000 AMONG UNIVERSITY STUDENTS

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Project submitted in the fulfillment of the requirements

for the degree of

Bachelor (Hons.) of Optometry

Faculty of Health Science

JULY 2015

AUTHOR'S DECLARATION

I declare that the work in this thesis was carried out in accordance with the regulation of Universiti Teknologi MARA. It is original and is the result of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

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TABLE OF CONTENTS

ABSTRACT

Contrast sensitivity is described as the ability of visual system to distinguish between an object and its background. There are various clinical tests that measure contrast sensitivity, among those are the Vistech versions (VCTS 6500 and MCT-8000), Vector Vision CSV-1000 and the widely used Functional Acuity Contrast Test (F.A.C.T.). Thus, chart with different illumination may have different effect in measuring contrast sensitivity. Hence, the aim of this study to find the differences of luminance effect by FACT screen test, illuminated CSV-1000 and non- illuminated CSV-1000. A total of 38 subjects with habitual visual acuity of 6/6 were included in this study. Visual acuity and refraction were taken using Snellen Chart. While the measuring of contrast sensitivity were done with three types of charts; FACT chart, non-illuminated CSV-1000 and illuminated CSV-1000. There were statistically significance differences in the measuring contrast sensitivity for 6 cyles per degree of spatial frequencies using non-illuminated CSV-1000 and for 18 cycles per degree of spatial frequencies using illuminated CSV-1000 that showed a level significance $p < 0.50$. However, there WAS no significant difference for FACT screen test for measuring all spatial frequencies level. Next, there is major significant difference between the charts in measuring contrast sensitivity. Hence, this show the presence of illuminance of the charts also affecting the results of contrast sensitivity levels.