

UNIVERSITI TEKNOLOGI MARA

**VISUAL COMFORT WITH
DIFFERENT CORRELATED
COLOUR TEMPERATURE AMONG
PRESBYOPIA**

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**Project submitted in partial fulfilment of the
requirements for the**

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AUTHOR'S DECLARATION

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

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ABSTRACT

Purpose: To assess and compare the visual comfort with three (3) different correlated colour temperature among presbyopia. **Materials and methods:** 14 subjects among elderly aged from 37 to 59 years old recruited randomly from the area of Kuala Selangor, Selangor. The subject was asked to read the largest notation size of words until the smallest notation size of UiTM near reading chart in three (3) different correlated colour temperatures (2,856K, 4,100K, and 5,600K). The questionnaire is given and the subject needs to respond their feedback regarding the visual comfort based on the rating scale. **Results:** The 2,856K lamp provided the least visual comfort at all. The finding shows that 2,856K lamp was rated least favourably in every aspects of the questionnaire. It was rated particularly low on psychological indicators such as how the participants liked the colour of the lamp, on physiological indicators of the light bothering their eyes, giving them headaches, making them sleepy or tired, and making them uncomfortable. However, most of the subject response on both types of 4,100K and 6,500K colour temperature were rated similarly for certain questions. Seven (7) out of (9) question shows no significance different between this colour temperature. The subject had scored with high rating scale, means that they are least favourable towards the question asked. **Conclusion:** The best visual comfort that can be obtained from the two colour temperature, which were within 4,100K and 6,500K.

Keywords: Visual comfort, Correlated Colour Temperature, Presbyopia

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