ČVUT
ČESKÉ VYSOKÉ UČENÍ TECHNICKÉ V PRAZE

REVIEWER'S OPINION OF FINAL THESIS

I. IDENTIFICATION DATA

Thesis name:	Photometry and Application of Tunable White Luminaires
Author's name:	Burak Gündogdu
Type of thesis :	master
Faculty/Institute:	Faculty of Electrical Engineering (FEE)
Department:	Elektoroenegetic
Thesis reviewer:	Ing. Daniel Novák
Reviewer's department:	Halla, a.s.

II. EVALUATION OF INDIVIDUAL CRITERIA

Assignment **easy**

Evaluation of thesis difficulty of assignment.

Master thesis is more challenging by it's volume. Student had to get acquainted with one lighting software and some directives. The master thesis has not big scientistific benefit.

Satisfaction of assignment **fulfilled**

Assess that handed thesis meets assignment. Present points of assignment that fell short or were extended. Try to assess importance, impact or cause of each shortcoming.

All points were fulfilled.

Method of conception **correct**

Assess that student has chosen correct approach or solution methods.

Selected process of issue solving was right. However the calculated room should be more similar to a real room.

Technical level **B - very good.**

Assess level of thesis specialty, use of knowledge gained by study and by expert literature, use of sources and data gained by experience.

The knowledge acquired from studying the literature were appropriately used in the master thesis.Technical directives were used mainly for calculations.

Formal and language level, scope of thesis **B - very good.**

Assess correctness of usage of formal notation. Assess typographical and language arrangement of thesis.

Language and form are on high level.

Selection of sources, citation correctness **B - very good.**

Present your opinion to student's activity when obtaining and using study materials for thesis creation. Characterize selection of sources. Assess that student used all relevant sources. Verify that all used elements are correctly distinguished from own results and thoughts. Assess that citation ethics has not been breached and that all bibliographic citations are complete and in accordance with citation convention and standards.

Great part of used literature for the master thesis is foreign-language. There are more available sources of literature, which could by used for this master thesis as data source or basis for theory.

For example: https://lightinganalysts.com/blog/all-things-lighting/ or http://lightingforpeople.eu/human-centric-lighting-downloads/

Additional commentary and evaluation

Present your opinion to achieved primary goals of thesis, e.g. level of theoretical results, level and functionality of technical or software conception, publication performance, experimental dexterity etc.

Measured data and calculation results are usable in practice and they could be a source for further calculations.

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III. OVERALL EVALUATION, QUESTIONS FOR DEFENSE, CLASSIFICATION SUGGESTION

Summarize thesis aspects that swayed your final evaluation. Please present apt questions which student should answer during defense.

Master thesis purpose was mainly to propose lighting system with optional colour temperature and lumen output. The design was prepared for lighting system in classroom. Design states different lighting levels of the system. Design should respect the reality of lighting systems. There are no windows calculated, which would change reflectance level in this room. I also miss black board in the calculation. It is usually illuminated by special lighting system. Student had to master dialux programme and use of directive ČSN EN 12464-1 and DIN SPEC 67600. He managed both so I see the master thesis as fulfilled.

I evaluate handed thesis with classification grade **C - good.**

Q: In you master thesis you stated, that Tunable white luminaires are suitable for operating rooms. Could you summarize what are requirements for these rooms in ČSN EN 12464-1? What will be the benefit of this luminaires system in these rooms?

Date: **6.6.2018** Signature: