

# Country Update: Denmark

Casper Kofod  
Carsten Dam-Hansen

Toulouse 24th October 2023



*Home sweet home*



# Agenda

1. Finalised DK R&D project – International Standards and Global Energy Savings
2. Guide on replacement of Fluorescent Lighting with LED lighting

# 1. Finalised DK R&D project

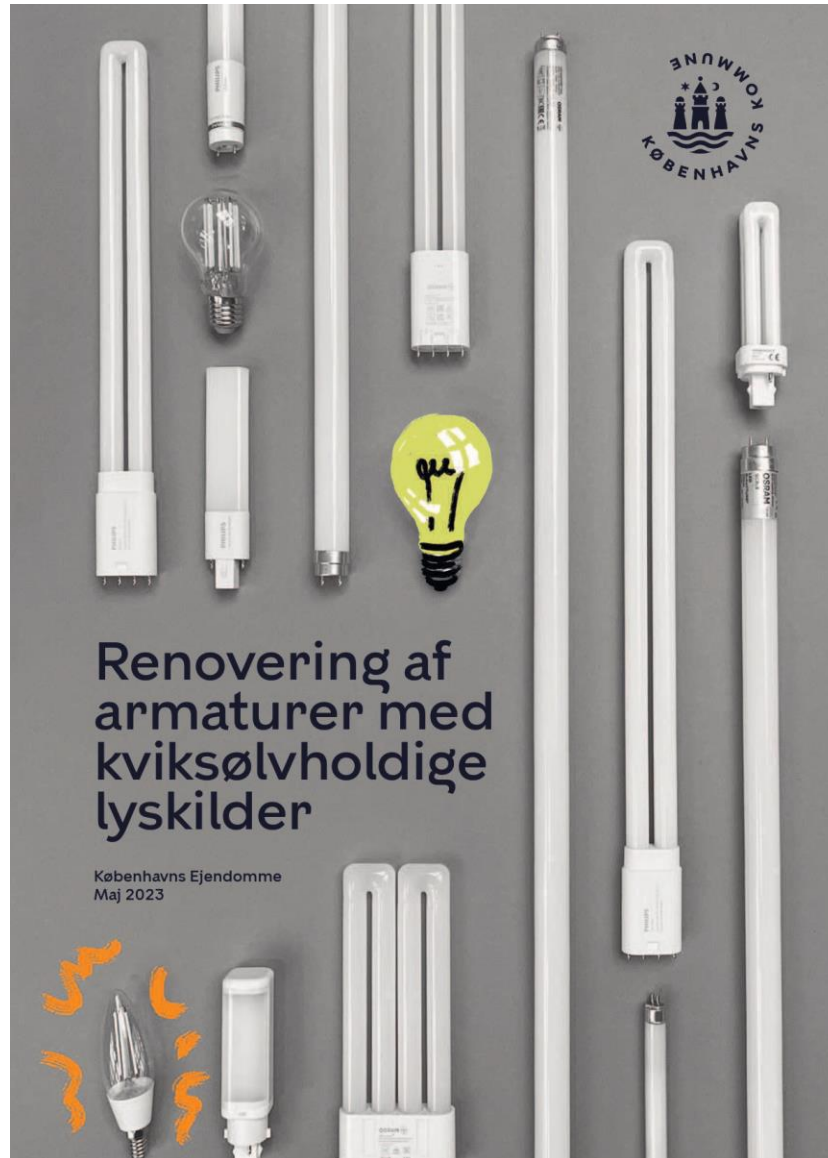
## International Standards – Global Energy savings



- **Partners: DTU Fotonik (project manager Anders Thorseth), Energy piano, VISO Systems and Danish Center Lighting**
- **Period: 01-09-2021 - 31-08-2023**
- **Measurements and Characterisation of Smart Lighting: Luminous flux, Power, CCT, DUV, CRI, Flicker, Standby**
- **Performance and Energy Savings by use of smart lighting**
- **New XML-formats (TM-33) instead of Eulumdat, LM63, TM-14 or UNI 11733-2019 – for engineers, lighting designers and architects**
- **Implementing the XML solutions in VISO Systems software**
- **Global Lighting Data Format <https://gldf.io/> for software tools as Dialux and Relux**
- **Forwarding the results for Revision of CIE S 025 standard (Anders Thorseth)**



# 2.1 Replacing Fluorescent Lighting



Guide produced by  
Copenhagen Municipality

[Belysningsvejledning digital version opslag v2.1.pdf](#)  
([centerforlys.dk](http://centerforlys.dk))



## 2.2 Replacment of Flourecent Lighting



Videos produced by TEKNIQ  
Arbejdsgiverne, DCL, FABA and SIK

1. Replacing a lighting system

[Uge 33 - LED Udskiftning af belysningsanlæg\\_final on Vimeo](#)

2. Daylight control

[Uge 34 - LED Dagslysstyring\\_final on Vimeo](#)

3. Replacing a light source with a new type of light source

[Uge 37 - LED HF Udskiftning til LED rør\\_final on Vimeo](#)





Thank you