

Challenges In Implementing LED Lighting in Commercial/Non-Residential Buildings in Sri Lanka

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Conserving energy and being sustainable is very important for any commercial building in the current context. Since lighting systems consume a considerable amount of energy in a commercial building, it is essential to implement energy efficient lighting systems. LED lighting is the most energy efficient lighting technology that is commonly available today. LED lighting has been used in commercial buildings in Sri Lanka for over ten years now. However, LED is still an evolving technology and relatively new technology for Sri Lanka as well. Hence, there can be challenges faced by the building sector professionals in using LED lighting. This study aims to identify the perception of different stakeholders of commercial buildings, the challenges they have faced in implementing LED lighting. Further it was necessary to identify possible measures that can be taken to overcome the prevailing issues were analyzed. A survey questionnaire was conducted among the different stakeholders involved in commercial building projects during different phases of the building life cycle. Further a desk study was conducted regarding the standards, regulations prevailing in Sri Lanka and the initiatives taken by other countries to identify the possible strategies that can be used to overcome the identified issues. It was found that stakeholders were enthusiastic in implementing LED lighting but they had several concerns. The main challenge identified was the lack of standards and relevant regulations in Sri Lanka with regards to LED lighting used for commercial buildings. Further it was found that there are educational gaps among the professional regarding LED lighting. In addition, it was found that the regulations in the building sector are not sufficient to make energy efficient lighting mandatory. It was concluded that introducing comprehensive quality standards for commercial LED lighting is essential and regulatory measures should be taken to enforce energy efficient lighting in commercial buildings. These measures are required to solve these issues and utilize the LED lighting in an optimum manner to reach the sustainability goals of the country.

Keywords: LED lighting; commercial buildings; Sri Lanka; challenges