

(54)

**An Assessment of User Preferences on Artificial Pathway Lighting in Urban Parks
with Special Reference to the Greater Colombo Region**

Wickremasinghe L.L.S.* , Hettiarachchi A.A.

*Department of Architecture, University of Moratuwa, Moratuwa, Sri Lanka
lashaniwickremasinghe@gmail.com

Abstract

Being a globally immerging concept, urban parks play a critical role in converting cities to liveable spaces, where artificial lighting directly affects the users' night-time experience. Therefore, addressing user needs and preferences helps achieve a successful lighting design. This study was conducted at four popular urban parks in Colombo: Viharamahadevi Park, Independence Square, Urban Wetland Park and Diyatha Uyana, where the urban park users' subjective responses towards three lighting parameters: brightness, Correlated Colour Temperature (CCT), and luminaires of the existing pathway lighting design, selected based on the appropriateness in terms of pathway lighting, and the practicality of assessing them within the chosen urban parks, were evaluated. The reasons for the said preferences were investigated under three overarching themes: perceived safety, perceived quality of light, and restorative experience. Data collection was done through a mixed methods approach under two main steps, namely the literature review survey and the case study survey. A sample of 10 participants (5 males and 5 females) were selected at each location through convenience sampling. Questionnaires were given to the users to rate their preference towards the existing pathway lighting conditions on a scale from 1 (very unsatisfied) to 5 (very satisfied). The user responses were analysed together with existing brightness levels measured using a digital lux meter, in-situ observations and photographic analysis of user behavioural patterns at case study locations, so as to further strengthen the outcomes. Aligned with literature, the user preferences were found to be directly associated with their perception of the lit environment. The results revealed that the majority of the users opted for change in the current lighting design, although they were both negatively and positively affected by it, indicating that the user needs and requirements are not effectively addressed in this regard.

Keywords: User preference, Artificial lighting, Pathway lighting, Urban parks