

## Quality of Pavement Lightening and its Effect on Citizen's Sense of Security (Case Study: Shorabil Tourist Area)

Leila Sayyad Bidhandi<sup>1\*</sup>, Yaser Gholipoor<sup>2</sup>, Salman Feizi<sup>3</sup>

1. Assistant Professor of Geography, Tehran PNU University

2. MA in Geography and Urban Planning

3. PHD Student in Geography and Urban Planning, Tabriz University

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### Extended abstract

#### Introduction

One of the urban parts most visited by the citizens is city sidewalks in which a great number of people pass by day and night. Therefore, sidewalks lightening are an essential part of the night life of a city. To provide a designing guide for a lightening with a social function, it is essential to study the relations urban space lightening and perceived effects of citizens. Since the physical elements can change people's perceived safety, they have an undeniable impact on the quality of lightening. The purpose of this study is to investigate the correlation of the nocturnal lightening physical properties and the motivation of the tourist area of Shourabil.

#### Methodology

This is an applied research with a description- analytical method and analysis of correlations among the variables. It is also classified as fieldwork survey that uses questionnaire and somewhere interviews. The people included in this research are those who walk in this area at night. Sample volume is set 148 based on Morgan Table and purposive sampling. The analysis of data is performed by SPSS22. Analytical test such as One-Way ANOVA (F), U Mann-Whitney, Chi-Square  $X^2$ , Kendall's tau-b and Pearson correlation coefficient, and Kruskal-Wallis are also used.

#### Results and discussion

The main issue in this study is to examine physical and social factors influencing the sense of safety of citizens during the night walkings in the tourist zone of Shourabil, Ardebil.

Results show that physical properties of sidewalks including monotonic lightening with face detection at nights, and hiding is affecting the sense of safety. In other words, safety level according to the results has a meaningful contrast ( $P < 0.05$ ). There is also a meaningful correlations ( $\text{sig} = 0.000$ ) between people interest and prioritization of the sample area and sense of safety, people familiarity with the safety, the number of night walks and the sense safet ofy, the sense of being secure and safe.

#### Conclusion

The lightening in public walking areas has an essential effect on people experience of being in a

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\* Corresponding Author, Email: sayyad1@yahoo.com, Tel: 0981333261925

public space. Different properties of lightening cause various emotional responses in people. Sidewalk space could either induce a good feeling in citizens or make them feel stressed. Safety is a crucial index of the lightening quality affecting people behavior in sidewalks during the night walkings. Preparing sufficient infrastructures, minimizing crimes and improving nocturnal lightening in public place, can develop perceived safety of citizens. It is also notable that quality of lightening is not the same as increase in the lights.

**Keywords:** lightening, pavement, sense of safety, Shourabil, Ardebil.

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