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Spirituality of Light in the Mosque by Exploring Iranian-Islamic Architectural Styles

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Highlights

- Investigate the concept of light in different styles of Iranian-Islamic architecture.
- How to use light determines a person's satisfaction during worship.
- Use the ergonomic lighting index questionnaire and its analyzer software (ELI-calculator).

Article Info

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Keywords

Spirituality of light, Historical mosques, Contemporary mosques, Iranian-Islamic architecture style, ELI

Abstract

The purpose of this study is to investigate the concept of light and its interpretation in different styles of Iranian-Islamic architecture. By distinguishing between the content and the physical evaluation of historical periods, one can find a way to properly use different patterns in contemporary mosques. The present study has been conducted using descriptive-analytical method and consists of three stages. First, the role of light in the mosque is investigated, then qualitative and quantitative data have been classified. For this purpose, the ergonomic lighting index questionnaire and its analyzer software (ELI-calculator) have been used. Finally, data have been examined and analyzed by SPSS software. The results of the research show that two criteria of "quality of vision" and "visual comfort" have been of great importance in all periods and styles of Iranian-Islamic mosques; but the architects of the historic mosques have paid more attention than contemporary mosque architects to the criteria of "prospect" and "vitality in the environment" and this difference is statistically significant. Therefore, how the shape of the openings and their location and the way light is applied affects the satisfaction level of the person during worship.

1. INTRODUCTION

"The existence of God is all light, and man as the manifestation of God on earth has the existence of light" [1]. Human beings should think about light considering their meaningful relationship to it, and the feeling of being linked to it is something unconscious and inward. At the same time, light at its most elemental and material aspect can be understood by the human sight and "can be a tangible and objective connection between the human body and the nature of the truth" [2]. Therefore, in a mosque, which is a building necessary to establish and maintain a connection between man and God, light is one of the fundamental parameters as a mediator variable of the semantic aspect of the existence God and the servant, and is worthy of investigation. It seems that the manifestation of this meaning in the vicinity of the mosque presents a different architecture in different periods and styles and, this also proves the necessity of examining the interest of light in mosques of Iranian-Islamic architectural styles.

Iranian-Islamic architecture displays great variety, both structural and aesthetic, from a variety of traditions and experience. Without sudden innovations, and despite the repeated trauma of invasions and cultural shocks, it has achieved "an individuality distinct from that of other Muslim countries" [3]. Its paramount virtues are: "a marked feeling for form and scale; structural inventiveness, especially in vault and dome construction; a genius for decoration with a freedom and success not rivaled in any other architecture" [4].

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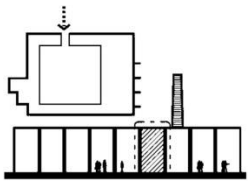
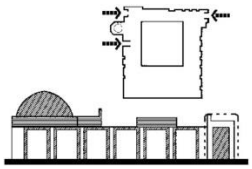
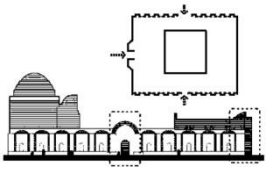
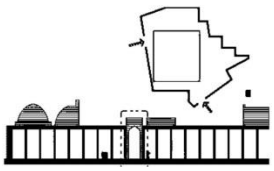
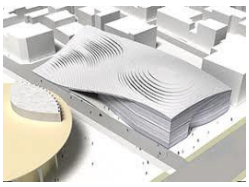
Iranian-Islamic architecture of various historical periods has been evaluated from various landscapes and different categories have been made about its styles according to the type of attitude and manner of valuation. It seems that the principles and logic governing the way of valuating and differentiating the architecture of the Islamic era from "the perspective of Dr. Pirnia is the most comprehensive style distinction which is widely accepted by many scholars" [5]. Classification of Iranian-Islamic Architectural Styles are "Khorasani", "Razi", "Azeri", "Isfahani" and "Contemporary modern" [6]. Classification of Iranian-Islamic Architectural Styles is shown in Table 1.

Table 1. *Classification of Iranian-Islamic Architectural Styles [6]*

Style		**Description**	**Urban structure**	**The connection between the mosque and the neighborhood**
Historical	Khorasani	The Khorasani style began in the first century AH and continued until the fourth century AH and includes the periods of the Umayyads, Abbasids, Taheriands and Al Boyhids. What is clear about the culture of this time is that cultural transformation occurs most in Khorasan, and from there reaches the cities of Damghan and Yazd, and so on.		
	Razi	The Razi style includes periods of Samanids, Ghaznavids, Seljukids, and Kharazmshahiands. The beginning of the Razi style, although it originated from northern Iran, was built in the city of Ray and thegreatest buildings were built there. But unfortunately, they have been lost in the wake of looting of Mahmoud Ghaznavi.		
	Azeri	The Azeri style includes periods of the Ilkhanis, Timurids and Turkemands. The native architecture of Azerbaijan is the creator of this architectural style.		
	Isfahani	The origin of this style is not the city of Isfahan, but it grew there and the greatest buildings were built there. This style includes periods of Safavids, Afsharids, Zandiehds and Qajarids.		
Contemporary	Contemporary Modern	The contemporary period started in the Qajar period to the present day and includes the Pahlavids period, post Islamic Revolution to date.		

A brief account of various works of Iranian-Islamic architecture in different periods illustrates the fact that Iranian architects have always been looking for order in elements, components, spaces and buildings and, "they used a variety of practices in order to achieve this" [7]. One of these methods is the use of light. "What

is nowadays visible in the architecture of contemporary mosques is the absence of the creation of spirituality in settings with the help of light" [8]. In current time, modern architecture design opinion along with new generation of academic graduated architects has great influence on new buildings, such as mosques design. One of the most important effects is the distortion of shapes and space, which is headlined as new design view of mosque in architecture and society. Unlike the past which mosque buildings were followed by special tradition style in each era, there is much diversity of types and design methods, "which it cannot be classify in tradition or any specific category by shape and form" [9].

Considering the results of studies on light and its effect on the mosque, it seems that quantitative variables are involved in the study and indirectly affect the quality of light in the mosque's body. Undoubtedly, the change in these variables will change the play of light in the mosque's body, and will lead to a different manifestation in the mind of the audience. Therefore, the present study examines this hypothesis. In this research, by revising the way of lighting in mosques of different periods of Iranian-Islamic architecture, the qualitative role of light is emphasized and the attainment of the methods of the presence of qualitative aspects of light is analyzed.

2. RESEARCH METHOD

This descriptive-analytical research was carried out in three stages:

1. Using the library studies, the role of light in the mosque has been investigated and a mosque has been selected as a sample for each period of Iranian-Islamic architecture. The sample selection criteria in the present research are as follows: a) the mosque, which is usually part of the great mosques of the city and has attracted most of the physical and conceptual attention because of their importance. b) Mosques which have been under the attention level of architects of religious and Islamic monuments of all ages at the macro in terms of their construction method and special features.

2.Qualitative and quantitative data have been categorized. The Ergonomic Lighting Index (ELI) questionnaire was distributed among 16 Iranian architecture professors who conducted research activities in the field of light in architecture (10 men and 6 women, mean age of 37 years, standard deviation 7.48). The Ergonomic Lighting Index (ELI) questionnaires were collected after visiting image of the selected mosques. Then, the data and statistical data were entered into the ELI-calculator software. The (ELI) index is a new standard in the lighting sector, and ergonomic factors of light such as visual quality, visual performance, landscape, visual comfort, vitality and capability are measured in this index. "This index is responsible for the task of analyzing the physical and psychological effects of light in order to provide optimal lighting quality for individuals" [10]. The difference in this method with other methods of qualitative light measurement is how light affects human space satisfaction.

3.Data and charts have been analyzed by SPSS software and suggestions have been presented for the use of light in contemporary mosques. The Process of Content Formation and Research is shown in Figure 1.

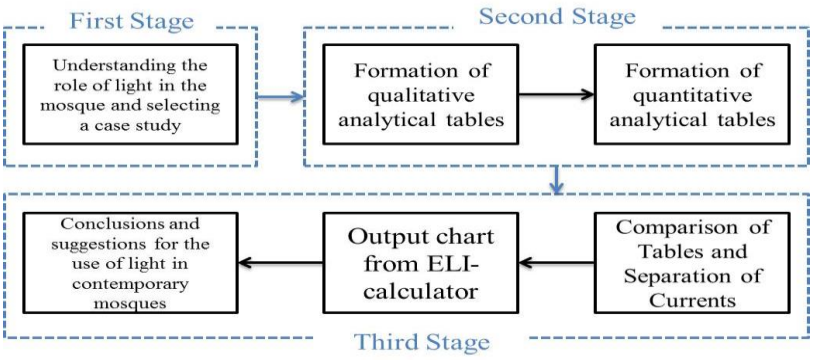


Figure 1. *The process of content formation and research*

Comparison of the output information and discovering its relationship to the qualitative aspects of light can reveal how to use the techniques with natural light in architecture to achieve spiritual light. What distinguishes the current research from past research are the measurement tools used, the method of analyzing the spirituality of space in terms of lighting and its measurement method.

3.EXPLORATION OF LIGHT IN MOSQUES OF IRANIAN-ISLAMIC ARCHITECTURAL STYLES

Lighting elements in traditional Iranian architecture are studied in two ways. The first group as light controller, such as a variety of shades and the second group as lightwells. The first group has the role of adjusting the light entering the building and are divided into two categories: first, the ones that are of the building, such as the porch and the second includes ones which are added to the building and are sometimes decorative, like the curtains. The elements which are used as lightwells have different names, but are still light wells, namely: Lattice, Lattice doors and windows, Aperture, Sash Window, Horno, Roshandan, Goljam. Elements and methods of illumination in mosques is shown in Figure 2.

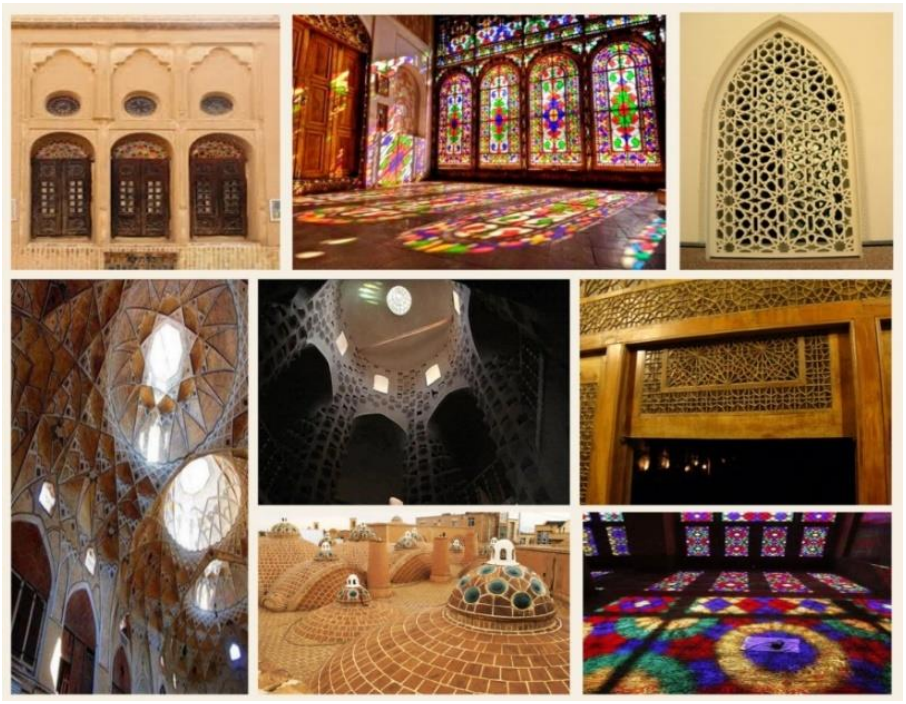


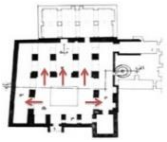
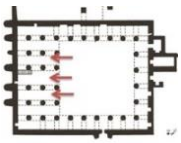
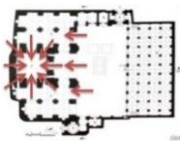
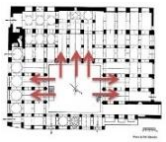
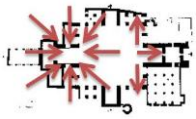
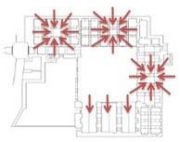
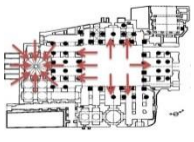
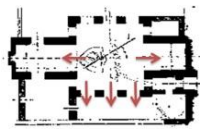
Figure 2. *Elements and methods of illumination in mosques [11]*

The architecture of a building as an interfering element plays a role in the way of presenting light. In the design of the opening, the opening location factors of the surface, dimensions, geometry and form of window and equipment such as a canopy and floor that contribute to the amount of light entering the space have been investigated by the researchers and experts in this field. There is a direct relationship between the opening design factors and the qualitative and quantitative aspects of the resulting light in space. And any space requires a type of opening design in terms of the light requirement and the psychological effects of light on users inside space.

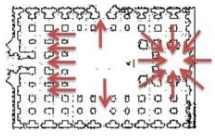
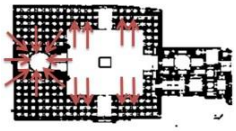
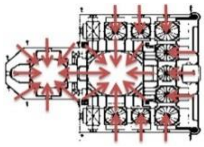
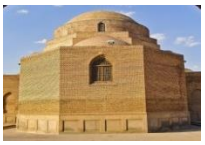
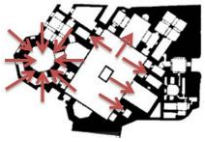
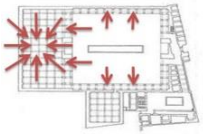
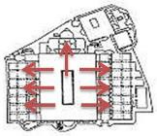
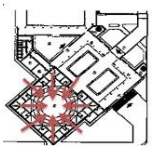
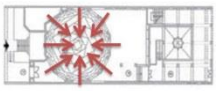
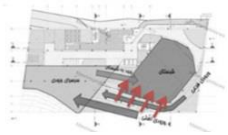
On the other hand, the optical distribution pattern resulting from the design of the openings is directly related to the quality of the design of the openings. The top shades of opening and curved plates to prevent direct light entering, make the light distribution pattern uniform and allow the lowest radiation to enter space. The slope of the interior cavity of the roof to the point of opening causes the light to be uniformly distributed and prevents contradiction. External Controllers and How to Conduct Light is shown in Figure 3. Evaluation Location of Light on Mosques is shown in Table 2.

Figure 3. *External controllers and how to conduct light [8]*

Table 2. *Evaluation location of light on mosques*

Style		Course	Course Index mosque	Lights in mosques		
				Light in the plan	Wall light	Dome light
Historical	Khorasani	Umayyads (1)	Fahraj Jame Mosque			No roof lighting
		Abbasids (2)	Tarikhaneh Mosque of Damghan			No roof lighting
		Taherians (3)	Borujerd Jame Mosque			
		Al Boyhis (4)	Naiyin Jame Mosque			No roof lighting
	Razi	Samanids (5)	Abarkuh Jame Mosque			
		Ghaznavids (6)	Damghan Jame Mosque			
		Seljukids (7)	Ardestan Jame Mosque			
		Kharazmshahids (8)	Foromad Jame Mosque			No roof lighting

Continues Table 2. *Evaluation location of light on mosques*

Style		Course	Course Index mosque	Lights in mosques		
				Light in the plan	Wall light	Dome light
Historical	Azari	Ilkhanids (9)	Varamin Jame Mosque			
		Timurids (10)	Goharshad Mosque of Mashhad			
		Turkemanids (11)	Kabood Mosque of Tabriz			
		Safavids (12)	Hakim Mosque of Isfahan			
	Isfahani	Afsharids (13)	Kabood Dome Mosque			
		Zandiehids (14)	Vakil Mosque of Shiraz			
		Qajarids (15)	Nasir al-Molk Mosque			No roof lighting
Contemporary	Contemporary Modern	Pahlavids (16)	University Mosque of Tehran			
		After the Revolution (17)	Al-Ghadir Mosque of Tehran			
		Contemporaneously (18)	Valiasr Mosque of Tehran			

By placing the lattice apertures under the domes of the Razi style mosques, some of the simplicity and lack of control over the mosques of Khorasani has diminished, and the mystical and religious atmosphere has dominated the mosque's setting. The techniques of embedding apertures and light guiding in Azeri style are very close to the Razi style. However, the light apertures are not limited to the gaps below the dome and have been also used above the altar. The windows above the altar represent the high places and the place of power and sanctity; which the viewer encounters at the time of entry and can make the most visually

impact. The larger the aperture, the more interior atmosphere one is exposed to. For this reason, the architect or embedding of small apertures above the altar and under the dome has given it a completely alien atmosphere with the material world and created a kind of spatial continuity by brightness contrast.

In Isfahani style mosques, various tricks have been used to strengthen the power of imagination. Using special forms and appropriate lighting in this period, visual phenomena are created that are perceptually not precisely defined and interpreted. Aside from that, the mystical atmosphere is given to the mosque, a set of lights shining from these apertures gives the overall decor of the courtyard a heavenly and imaginative beauty. Various techniques and instruments have been used in the mosques of this era to show divine beauty and to enhance the power of imagination. Such clever techniques in the combination of darkness and brightness give a special glory to the place of worship, and then enhances its beauty aspect. Although contemporary mosques use light in proportion to new spaces and materials, the creation of a mystical space with the help of light in mosques of this period has been less of a concern for architects. Therefore, it is recommended that the elements of the mosque and the method of illumination be used properly to increase the mystical mood of the mosque. Evaluation of elements and methods of illumination in mosques is shown in Table 3. Comparison of "the way of illumination" and "lighting elements" in Iranian-Islamic architecture mosques is shown in Figure 4.

Table 3. *Evaluation of elements and methods of illumination in mosques*

Style		Course	Opening Location						Elements and methods of illumination				
			Relative to the depth of the wall			Relative to the height of the wall							
			Same level Of wall	In the depth of the wall	Coming out of the wall	One third upper	Middle third	One third lower	Lattice	Lattice doors and windows	Sash Window	Horno	Roshandan
Historical	Khorasani	1	-	**	-	-	-	✓✓	-	-	-	-	-
		2	-	**	-	-	-	✓✓	-	-	-	-	-
		3	*	**	-	**	*	✓✓	-	✓	-	-	✓✓
		4	*	**	-	-	*	✓✓	✓	-	-	-	-
	Razi	5	-	✓✓	-	*	✓✓	✓✓	-	✓	-	-	-
		6	*	**	-	✓	*	✓✓	-	✓	-	✓	-
		7	-	✓✓	-	**	✓✓	✓✓	✓✓	-	**	-	✓
		8	-	**	-	-	-	✓✓	-	-	-	-	-
	Azari	9	-	✓	-	✓	*	✓✓	✓	✓	-	-	✓
		10	-	✓	-	✓	**	✓✓	-	✓✓	-	-	**
		11	*	**	-	✓	**	**	-	✓	-	-	✓
	Isfahani	12	*	✓	-	*	✓✓	✓✓	✓	✓	-	-	✓
		13	-	✓✓	-	*	-	✓✓	-	**	-	-	**
		14	*	✓✓	-	**	*	✓✓	**	**	-	✓	-
		15	-	✓	-	**	-	✓✓	-	✓✓✓	-	-	-
Contemporary	Contemporary Modern	16	*	**	-	*	-	✓✓	-	*	-	-	*
		17	**	*	-	**	**	**	✓✓	-	-	-	*
		18	*	**	-	**	**	**	-	-	-	-	-
Explanation		• (✓✓✓) Very High, (✓✓) High, (✓) Average, (*) Low, (**) Very small, (-) Never • Goljaam and Aperture not used in mosques.											

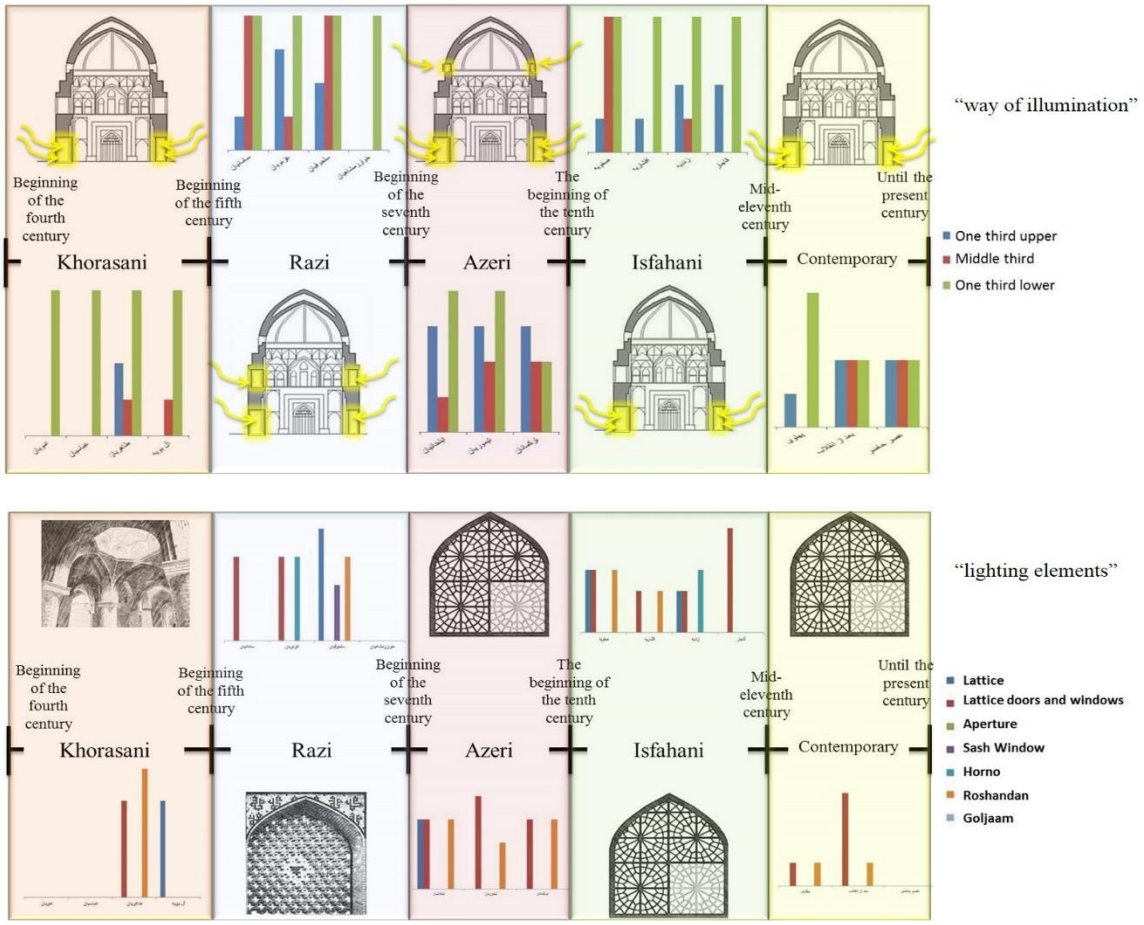


Figure 4. *Comparison of "the way of illumination" and "lighting elements" in Iranian-Islamic architecture mosques*

4.INVESTIGATION OF THE ELI INDEX IN THE IRANIAN-ISLAMIC MOSQUE ARCHITECTURE

"The criteria for the ergonomic lighting index include 5 factors" [10], which are used to facilitate the analysis of the charts, "the abbreviations of which have been listed next to them" [12], are as follows:

- **Visibility (A):** Quality of vision varies in different spaces depending on the type of activity and standards. Since compliance with the standards is very important for performing visual tasks and as a result of activities, the quality of visibility criteria determines if the existing lighting is suitable for a specific activity. Seven factors are examined in this criterion: Light intensity of light in space, the uniformity of light in space, natural and realistic feature of vision for surface color in the light, the amount of light necessary for the environment, the avoidance of intense shades distracting senses, avoiding the creation of dazzling light, avoiding creation of intense reflections.

- **Landscape (B):** This criterion is the first person's perception of space, in which six items are examined: The relationship between the location of light in space with its expected concept of architecture, the user's satisfaction with space light, and the rate of the observer's sense of satisfaction with the lighting, the relation between the lighting design and the performance of space, the effect of lighting on creating an appropriate structure for better understanding of space, increasing the quality of space perception in the presence of a bulb, the degree of lighting fit to the environment, such as humidity, heat and so on.

- **Visual comfort (C):** Visual comfort is a common area of lighting and space users. A space can only be bright to a proportional amount. The visual comfort level depends on the following factors: the distribution of light in such a way that it does not cause visual distortion and space blindness, the influence of lighting conditions on a better understanding of light distribution and space, the balance between the light of walls

and roof to create desirability in space, the conditions of natural light in space to prevent the creation of very dark spaces in the environment, lack of light flickering, uniform lighting conditions, the uniformity of light intensity in places where visual work is done.

- **Vitality in the environment (D):** Vitality is the positive effects of brightness on human welfare, both physiologically and biologically. Welfare and activity are interacting with each other and depend on the interaction between the following: light direction control, the direct effect of light and color in space on the individual's feelings during activity, control of the amount of light, creating a natural light sensation with more attention in the distribution and conditions of the light bulb, creation of biological rhythms in the body with bulb light, the degree of prevention of health disorder due to thermal radiation or electromagnetic fields.

- Empowerment (E): empowerment is personal ability to control and stabilize lighting conditions. This criterion, entitled "Responsiveness of the amount of space light to human's personal needs," deals with natural light, and the rest of the factors are associated with artificial lighting.

The statistical data are entered into the ELI-calculator software to examine the quality of lighting; the use of this software consists of two steps: a) Determination of the standard requirements in terms of ergonomic lighting index in the software are automatically adjusted and presented by selecting the type of space, its standard specifications. b) Space Evaluation with Ergonomic Lighting Index: At this stage, questions relating to each of the five main criteria on the scale from weak to high that have been evaluated are introduced into the software. Evaluation of the ELI indexes in the Iranian- Islamic mosque architecture is shown in Table 4.

Table 4. *Evaluation of the ELI indexes in the Iranian- Islamic mosque architecture*

Style		**Course**	**Visibility (A)**	**Landscape (B)**	**Visual comfort (C)**	**Vitality in the environment (D)**	**Empowerment (E)**
Historical	**Khorasani**	1	**	✓	**	✓	✓
		2	**	✓	**	✓	✓
		3	**	*	*	✓	✓
		4	**	*	-	**	✓
	Razi	5	*	✓	✓	✓✓	✓✓✓
		6	*	✓	✓	✓✓	✓✓✓
		7	*	✓	✓	✓✓	✓✓✓
		8	*	✓	**	*	✓
	Azari	9	✓	✓✓	✓	✓✓	✓✓✓
		10	✓	✓✓	✓	✓✓	✓✓✓
		11	✓	✓✓	✓	✓✓	✓✓✓
	Isfahani	12	✓	✓✓	✓✓	✓✓✓	✓✓✓
		13	✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓
		14	✓✓	✓✓✓	✓✓	✓✓✓	✓✓✓
		15	✓	✓✓	**	✓✓✓	✓✓✓
Contemporary	**Contemporary Modern**	16	*	*	-	✓	✓
		17	**	**	-	*	*
		18	-	**	-	**	**
Explanation		• (✓✓✓) Very High, (✓✓) High, (✓) Average, (*) Low, (**) Very small, (-) Never Goljaam and Aperture not used in mosques.					

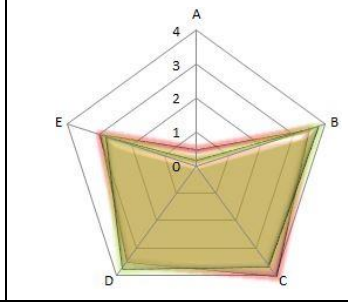
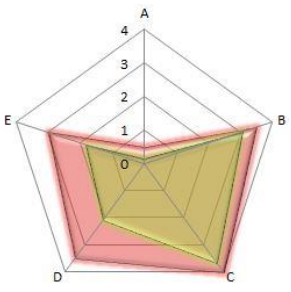
The requirements are easily compared with the results of the evaluations in the output of the software, in this way, the strengths and weaknesses of the existing lighting are identified and they can be presented in a pentagon chart (spider web), which is very simple to understand. Average Information and Statistical Data of Expert Opinions is shown in Table 5.

Table 5. *Average information and statistical data of expert opinions*

Place	Visibility (A)		Landscape (B)		Visual comfort (C)		Vitality in the environment (D)		Empowerment (E)	
	Standard deviation	Average	Standard deviation	Average	Standard deviation	Average	Standard deviation	Average	Standard deviation	Average
Historical Mosques	0.45	0.19	0.61	3.8	0.341	3.62	1.07	3.71	1.23	2.81
Contemporary mosques	0.37	0.05	0.37	3.07	0.42	3.35	0.53	2.09	0.75	1.83
Significance level	0.782		0.16		0.407		0.039		0.078	

Due to the high level of understandability and simplicity of this diagram, the space lighting designer uses this method to better present the results of the evaluation to the space users. Since the validity and reliability of this questionnaire have been examined and confirmed in several studies, relying on the ergonomic lighting index calculator in this graph displays the requirements in the red area and determines the results of the evaluation questionnaire in a green area and provides the simple comparison conditions. "These graphs represent the minimum scores required for the lighting system in the location" [13]. ELI-calculator software output is shown in Table 6.

Table 6. *ELI-calculator software output*

Mosque style	Historical Mosques	Contemporary mosques
The Chart Requirements Evaluation		

What follows from the results of the survey, using the ELI index, represents that historic mosque architects have designed lightwells with awareness of the effects of lighting on ways of worshipping. This phenomenon has been obtained due to the proper placement of the lightwells and their design factors. The location of the lighwells above $\frac{2}{3}$ of the internal height and height of the space, has brought the optimal and uniform light. On the other hand, the two shells of the lightwells and the design of the small entrance apertures of light, do not let direct sunlight, and light enter the interior after the refraction. This has made the interior light homogeneity. The subtle and uniform light that illuminates space without disturbing by dazzling increases the individual's focus for worship. This style is also seen in the contemporary style mosque, with the difference being that part of the openings have a shadow and others create dazzling lights and intense sunspots due to its deficiency. In general, uniform light is seen throughout the year in all mosques of the contemporary period.

For designers of mosques in all Iranian-Islamic architectural courses and styles, the discussion of "quality of vision" and "visual comfort" has been of great importance and in this regard all mosques have made the necessary efforts. Therefore, there is no statistically significant difference between these mosques in this regard. Comfort and concentration during worship is the improvement of performance and visual comfort in the historical and contemporary mosques. Both factors have addressed the quantitative aspects of lighting, and the observance of these items is seen in both historical and contemporary mosques. When there was no universal ergonomic standard to observe quantitative aspects of lighting; the observance of the above principles in the achievement of the historians of Iran's architects creates fancier and artistic thinking.

But the architects of the historic mosques have paid more attention to the criteria of "landscape" and "vitality in the environment" than contemporary mosque architects and this difference is statistically significant. Therefore, these two criteria are a good pattern for contemporary mosque architects to use in their design and in the application of light, which should be reviewed and modified. As to the matter of improving relationships between individuals, the light relation is also measured within group activities. The brightness features that affects communication between people is luminosity, spatial distribution, and spectral composition. The intensity of light and the direction of light determine how others see one’s face and their expressions. The effect of the quality of light on how to establish a relationship between individuals comes from the perspective that appears for a person in space. The difference in the landscape index was statistically significant and the best landscape is related to the historical mosque and the lowest is associated with the contemporary mosques. It is worth mentioning that in this case, the architects of the historic mosques have also been superior in their respective standards in comparison with their contemporary counterparts.

According to ergonomic knowledge studies, brightness affects people's mood and thus improves the mood of individual performance. When the light is very low (dark), the mental state is at its lowest level When the light is properly and appropriately experienced, the mood of the people is improved and reaches its highest level. But when the illumination is over experienced, the temperament will fall again. The exact extent of this effect has not been determined, but the relation between lightness and mood and the sense of worship cannot be denied. Decreasing the brightness by inviting a person to a more private environment invites him to calmly establishing a relationship with the Creator. In contrast, the ideal illumination that makes visual communication with the surrounding environment a design criterion, provides the groundwork for social communication. This is precisely seen in the design of the dome of historical mosques.

However, due to the lack of attention to the effects of lighting on the individual who wants to pray, there is no particular effect. The amount of stimulation caused by light on the vitality of the environment is investigated by the factors of ergonomic lighting index, which includes qualitative aspects of lighting. Brightness control can excite the individual performance by causing the individual's mood to improve and enhance individual performance. The difference in the vitality index was statistically significant and, the best thing about the observance of vitality is related to the mosques and the most inappropriate is related to contemporary mosques. Thus, in this case, the architects of the historic mosques have been taken over by contemporary architects.

5.CONCLUSION

According to the topics discussed in this study, light as a form of meaning and symbol of the existence of God, has an important place in the emergence of human mental concepts and how to use it helps to better understand these concepts. Daylight can be a determining factor in the level of relationships and stimulate the user's sense of worship. Therefore, how to use light determines a person's satisfaction during worship.

Graphical representation of graphs and statistical data show that architects of historical and contemporary mosques have observed few light factors, and there is no statistically significant difference between these mosques. But their only difference is the use of light quality factors. Architects of historic mosques in the design of buildings observe the quality standards of light, and in some cases, their excellence and progress

are beyond the standard. But in this context, the negligence of contemporary mosque architects is felt more and the changes needed to reach the standard level are felt. In order to achieve the light capabilities and its aspects of spirituality, the quantitative use of it seems enough. Unfortunately, in most contemporary buildings, employing tools that enhance the soul-enhancement aspects mosque has been neglected. Every day, the importance of applying a uniform amount of light in the design is added as light is not just brightness. If we take a deeper look at Iran's historical architecture, rich experiences of the qualitative aspects of light can be clearly seen.

According to research studies in selected mosques in all Iranian-Islamic architectural styles and courses, it can be said that the knowledge developed by Western scholars, namely the ergonomics of the world in 2010 found an objective appearance more than 400 years ago in architectural thinking and Ancient Iranian design. Consequently, it can be stated that knowledge of the use of the spatial quality of light for the promotion of spirituality is the indigenous knowledge of the land of Iran.

CONFLICTS OF INTEREST

No conflict of interest was declared by the authors.

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