The fourth dimension as an influence in the design of lighting units

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Abstract:

The fourth dimension is related to the movement as a time dimension that rejects stasis and tends to accommodate the design in various ways. Therefore, the designer can control the design
elements (lines, areas, colors, patterns, and materials) in the direction of motion in the design, whether on the two-dimensional or three-dimensional level as light and shadow enter as well in
it as a basis for motion. Recent trends in the design of lighting units have called for new thinking
that adopts the concepts of flexibility and interactivity in performance, which achieves the highest efficiency of the product in order to further meet the user's different and changing desires. We note that the motion, whether static or dynamic, has a very important impact in making a difference in the field of lighting unit design. The connection of the fourth dimension
to the interaction, which has become one of the axes of the user's needs, has largely driven interactive products that provide them with multiple uses and different designs that mimic the nature of the age and satisfy their ambition.

The research aims to find solutions flexible in the design of lighting units, through the dynamic
integration between the design elements, and the integration between its materials (mineralglass),
which allows the user to interact with it and with the product depending on the nature of its functional or aesthetic needs, or both. The research assumes that dealing with the fourth design dimension in terms of its temporal and spatial philosophy enriches the formative, aesthetic and functional values of lighting units, thus enriching the Egyptian market. As a result,
the research concluded that there are some design ideas that achieve interactive and flexible lighting units.

Keywords:

Fourth dimension, visual deception, interactive design, flexible design, kinetic lamps.

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