

## أثر الضوء في المظهر النهائي للتصميم البنائي في وحدات الإضاءة ذات الهيئة المركبة

**Light`s effect on the appearance of the structural design in the lighting units with multi parts**

إ.د/ رجب عبد الرحمن عميش

أستاذ تصميم بقسم المنتجات المعدنية والحلي كلية الفنون التطبيقية جامعة حلوان

إ.د/ جمال السيد الأحول

أستاذ تصميم بقسم المنتجات المعدنية والحلي كلية الفنون التطبيقية جامعة حلوان

م.م/ هالة مهدي علي

مدرس مساعد بقسم المنتجات المعدنية والحلي كلية الفنون التطبيقية جامعة حلوان

deshmlou@gmail.com

**Abstract:**

The light plays a role in enriching the relation between the form and the purpose of designing the industrial lighting unit. This relation is fundamental and reciprocal. The aim of the research is to improve the design of the lighting units to achieve the functional compatibility between the basic form and the light and the shadows resulting from that form. In addition to lighting effect in the total form. The research axes were the following problem of how the equation of the form with the Function. How get up a new design for lighting units with a multi parts. In the design process, the light considered as a component of the spacing with total form, the importance found in the creation of a logical formula for the relation between the design, total form and the light. Research hypotheses that improving the relation of design elements leads to successful performance and the good relation between design of the lighting unit, the light and shade resulting in a useful function. The results achieved useful benefit in the function of the internal lighting units, showed the correlation between the design of multi parts products and their functional returns in light effect from the form. Taking into account that the design of balanced lighting units need to good thinking in the effect of light as a structural element from the earliest stages of the development of ideas and design planning to ensure that Integrative relation between elements of the multi parts product to achieving the good function. The recommendations confirm the support of studies and research on the compatibility of the design form with the function in all areas of design. And the need to benefit from the light reflections on the various materials and colors to enhance the aesthetic aspects of light produced by the internal lighting unit.

Therefore, the research dealt with activating the role of light resulting from the unit in completing and changing the nature of the design structure of the lighting units are multi parts, studying the elements in the structure of the multi parts products and the effect of light and shadows. With the correlation of light with space , and study the spatial relations of the constituent figures of the form and how to activate these relation in light units, which shows the effect of light and shadow from the total form. To confirm the design aspect, final appearance on the lighting unit. And conducting some of experiments to confirm the hypotheses of research and achieve its goal.