A Study of Utilizing LED in the Design of Traffic Signals

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ABSTRACT

Because of the advantage of energy saving LED has been widely used for traffic signals. However, in current application, LED is used to replace the traditional light source only, without changing basic form of traffic signals. By taking advantage of LED ’ s flexibility of layout and also aiming to improve the current traffic signals, this research was to design a new type of traffic light for intersections. To evaluate the appropriateness of the design, scenario at intersection with new-designed signals was simulated by projecting image of traffic conditions onto the wall to the scale as seen in the real situation. Subjects sitting inside a passenger car facing the simulated scenes were asked to do the appraisal. Upon completion of the research drawings of the traffic signal and computer simulation showing the signal display were presented.

Keywords : traffic signals ; LED ; waiting psychology ; product design

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