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Abstract

Large screens have become more popular in recent years. Because of the increasing size of displays, the amount of information presented in the peripheral visual field has gained importance in many tasks on visual display units. Users of displays are often exposed to some change or difference in luminance in or between different areas of a display, which in turn may produce a phenomenon known as discomfort glare. Discomfort glare is likely to affect cognitive performance. The performance in the visual periphery is more susceptible to disturbances as is the case for the performance in the central visual field.

This study explored the effects of discomfort glare on detecting and processing peripheral visual information in a complex visual task. The task consisted of comparing the orientation of arrows presented in the central visual field and at 18° in the periphery. The arrows were superimposed on a background video and presented by a projection

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