# SURFACE ILLUMINANT DEVICE

## Field

The present disclosure relates to a surface light source device.

## Background

Conventionally surface light source devices are used as back lights in display devices that use, for example, liquid crystal panels or the like. For example, in Patent Document 1, a surface light source device in which a light diffusion plate made from an ultra high molecular weight plastic porous film disposed on one side of a light guiding plate is disclosed as this type of surface light source device.

## Summary

One aspect of the present disclosure ~~is~~provides a surface light source device, including a light source that emits light; a light guiding plate that guides light from the light source that is incident on a rear surface side or a side surface side ~~thereof~~ and emits the light from a front surface side ~~thereof; and~~ a diffusion plate disposed on the front surface side of the light guiding plate, that diffuses the incident light from the light guiding plate to a front surface side, ~~thereof~~and a reflecting polarizing plate disposed on the front surface side of the diffusion plate. The diffusion plate is made from nonwoven fabric with an areal weight of not less than 10 g/m$^2$ and not more than 40 g/m$^2$, and the diffusion plate is achromatic.

Another aspect of the present disclosure ~~is~~provides a surface light source device, including a light source that emits light; and a diffusion plate that diffuses to a front surface side thereof the light from the light source incident on a rear surface side thereof, and a reflecting polarizing plate disposed on the front surface side of the diffusion plate. The diffusion plate is made from nonwoven fabric with a real weight of not less than 10 g/m$^2$ and not more than 40 g/m$^2$, and the diffusion plate is achromatic.

## Brief Description of the Drawings

FIG. 1 is a schematic view illustrating the configuration of a surface light source device according to an embodiment of the present disclosure;

FIG. 2 is a schematic view illustrating the configuration of a surface light source device according to another embodiment of the present disclosure;

FIG. 3 illustrates the transmission and diffusion of light through a nonwoven fabric;

FIG. 4 schematically illustrates effect confirmation tests;

FIG. 5 shows the optical properties of the Working Examples and Comparative Example;