Abstract

We introduced color enhancement factors to control the spectral power distribution of illumination, which enabled us to enhance one or several colors at once while maintaining the color appearance of white. In experiments, three color enhancement factors corresponding to red, green, and blue were calculated using color patches on a color chart and employed for controlling a sixteen-color LED lighting system. The color chart and old discolored wood-block printings were illuminated by the modulated light from the lighting system. Each color was continuously and independently enhanced by changing just three parameters while preserving metamerism white and the color balance in daylight.

References