AS#5: Glasses for the color deficient

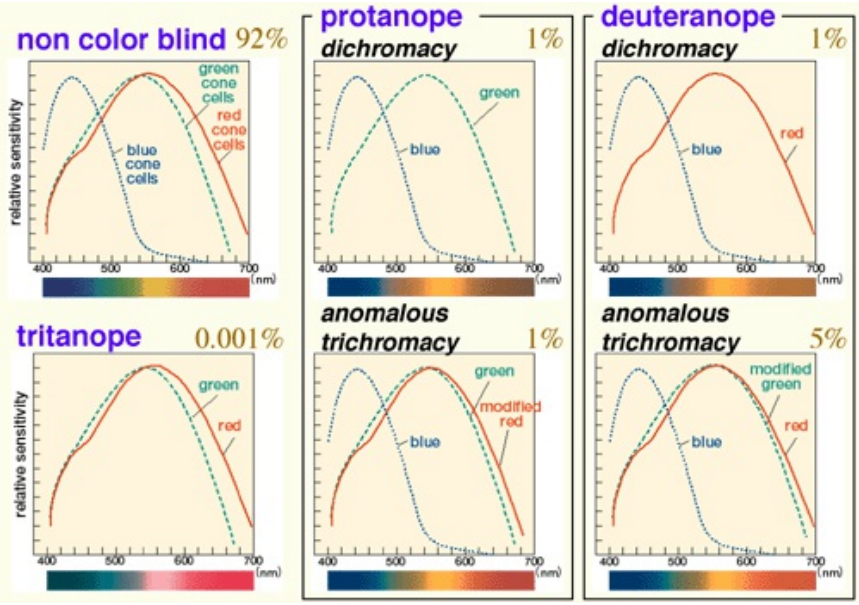
1.
   - the spectral responses without glasses:

$$
\begin{aligned}
R &= 1 \times 1 + 3 \times 3 + 2 \times 1 = 12 \\
G &= 1 \times 1 + 3 \times 3 + 2 \times 1 = 12 \\
B &= 1 \times 0 + 3 \times 0 + 2 \times 0 = 0
\end{aligned}
$$

   - the spectral responses with glasses:

$$
\begin{aligned}
R &= 1 \times 0 + 3 \times 0 + 2 \times 4 = 8 \\
G &= 1 \times 1 + 3 \times 3 + 2 \times 0 = 10 \\
B &= 1 \times 0 + 3 \times 0 + 2 \times 0 = 0
\end{aligned}
$$

2. Potential problem
   - It filter some color of the light so the brightness will be lower. So the glasses are not fit for the situation that light is weak.
   - Only work for protanope anomalous trichromacy and deuteranope anomalous trichromacy. Not working for tritanope and protanope dichromacy and deueranope dichromacy.



picture references from http://jfly.iam.u-tokyo.ac.jp/color/