For glare sources within an angular range of 0.1 to 30 degrees, this is given by the equation:

$$L_V = 10 \sum \frac{E_n}{\theta_n^2}$$

where: L_V = equivalent veiling luminance (cd/m²)

 E_n = illuminance at the eye from the "nth" glare source (lx)

 Θ_n = angle of the "nth" glare source from the line of sight (degrees)

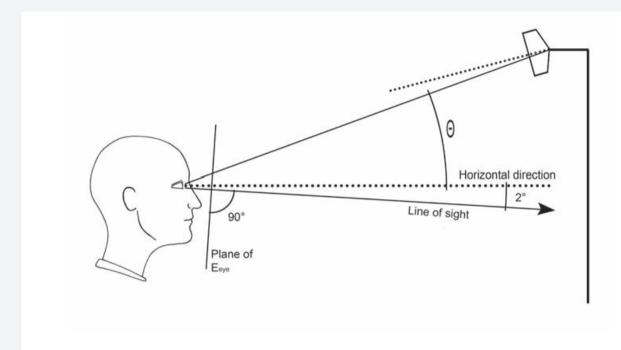


Figure 25 Viewer in connection with luminaire producing glare.

The effect of the equivalent veiling luminance on the luminance contrast of an object can be estimated by adding it to the luminance of both the object and the immediate background. Disability glare can be associated with point sources and large area sources. The disability glare formulae can be applied directly to point sources but for large area sources, the area has to be broken into small elements and the overall effect integrated. Disability glare from point sources is experienced most frequently on the roads at night when facing an oncoming vehicle. Disability glare from an extended source can occur when looking at an object on a wall adjacent to a window. The sky seen through the window is the glare source.

CHAPTER

B

