CALCULATIONS FOR „PERFORMANCE" GLARE LINE No 7

Assumptions taken for glare line No 7:

• The intensity under cut-off for distances considered (25 m…100 m) is high enough to cause glare

• Cut-off should be always under eye-height beyond 25 m from vehicle

• Minimum eye-height is 0.95 m

• Cut-off cannot be inclined higher than horizontal

FORMULA:

$$I = \Delta h / L_{min}$$

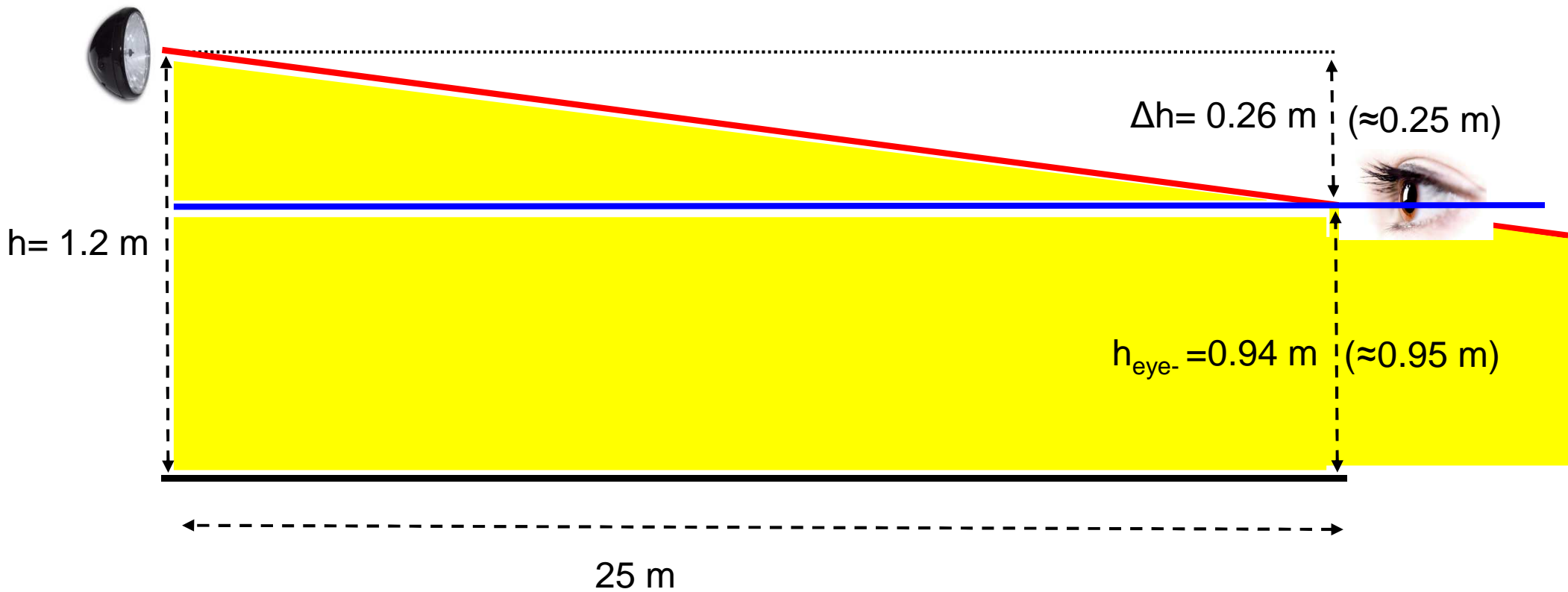I - cut-off inclination

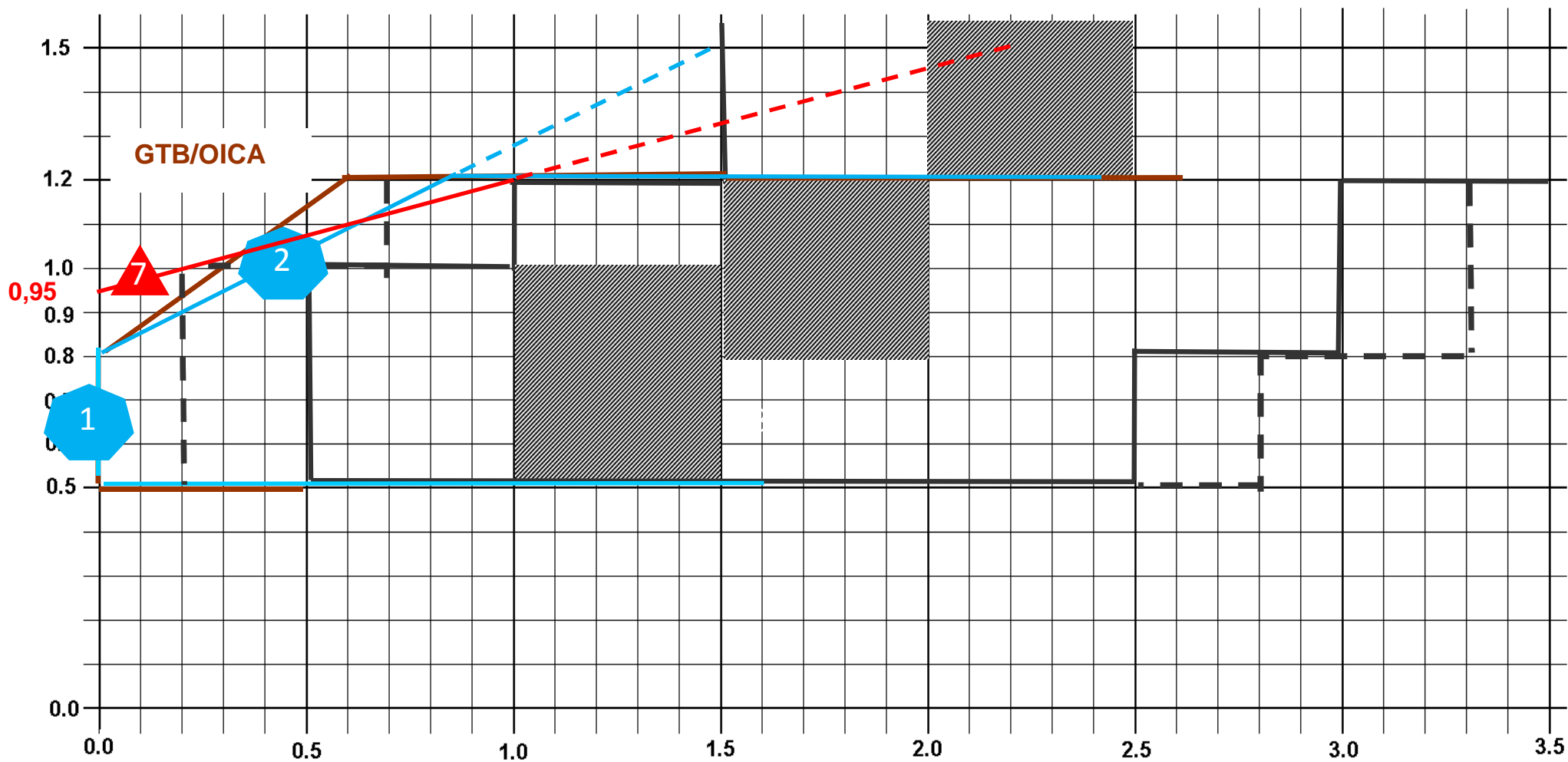Δh - headlamp optical axis height over minimum eye-height

L_{min} - maximum distance beyond the vehicle where glare is accepted (25 m)

CALCULATION EXAMPLE FOR HEADLAMP HEIGHT OF 1.2 m

$l = 0.25m/25m = 1\%$

$\Delta h = 0.26$ m $(\approx 0.25$ m$)$

$h = 1.2$ m

$h_{eye-} = 0.94$ m $(\approx 0.95$ m$)$

25 m

Lines '2' and '7' for 1.2 m and for 1.5 m

GTB/OICA

0,95

Right lines (3, 4, 5 , 8, 9) are removed to have clear glare image

CALCULATION EXAMPLE FOR HEADLAMP HEIGHT OF 1.5 m

$I = 0.55m/25m = 2.2\%$

$\Delta h = 0.56\ m$ ($\approx 0.55\ m$)

$h = 1.5\ m$

$h_{eye-} = 0.94\ m$ ($\approx 0.95\ m$)

25 m