

To ECE/TRANS/WP.29/GRE/2014/35 and 36

# Alternative definition of photometric requirements

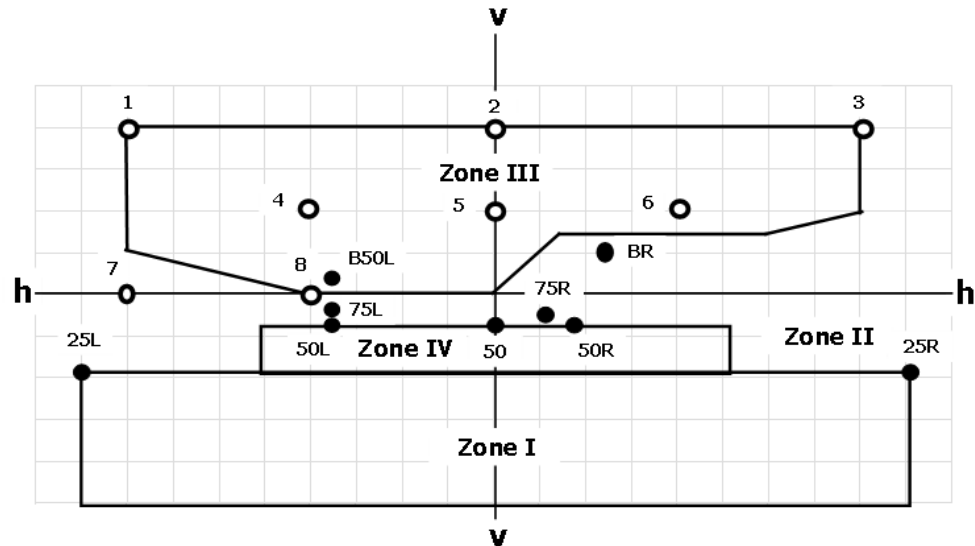
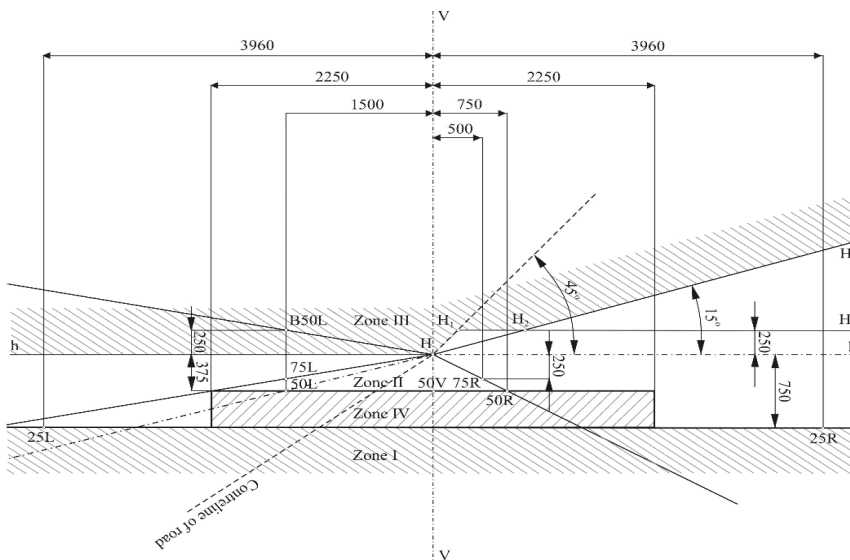
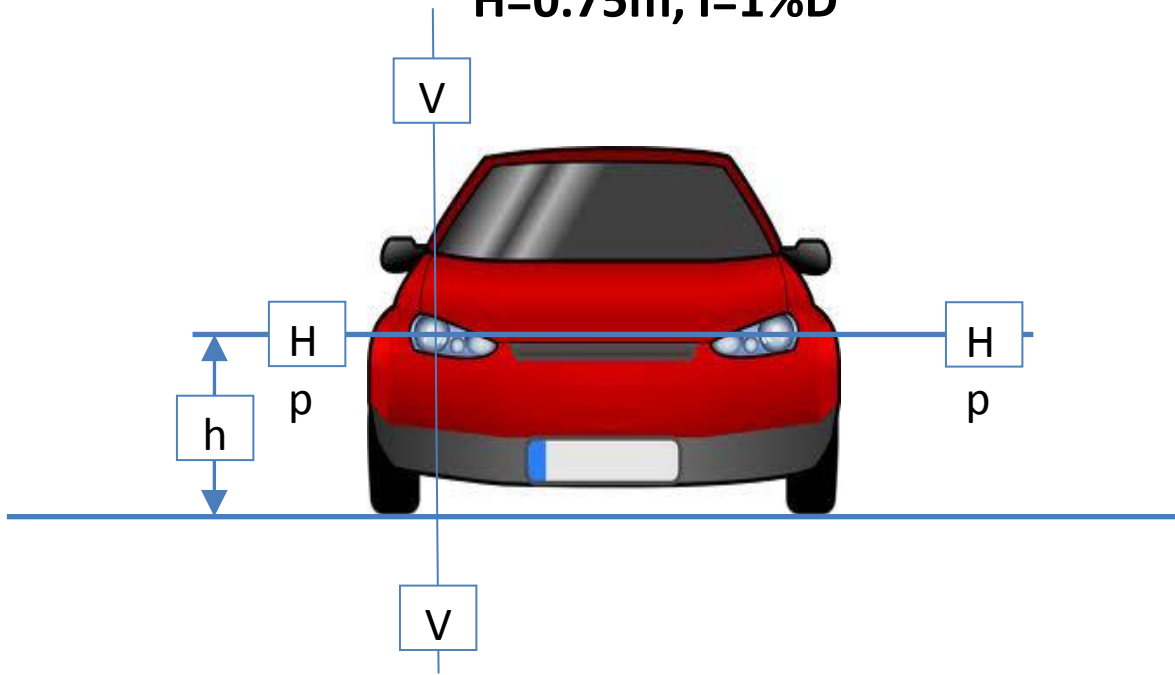
Tomasz Targosinski Ph. D. Eng

Poland

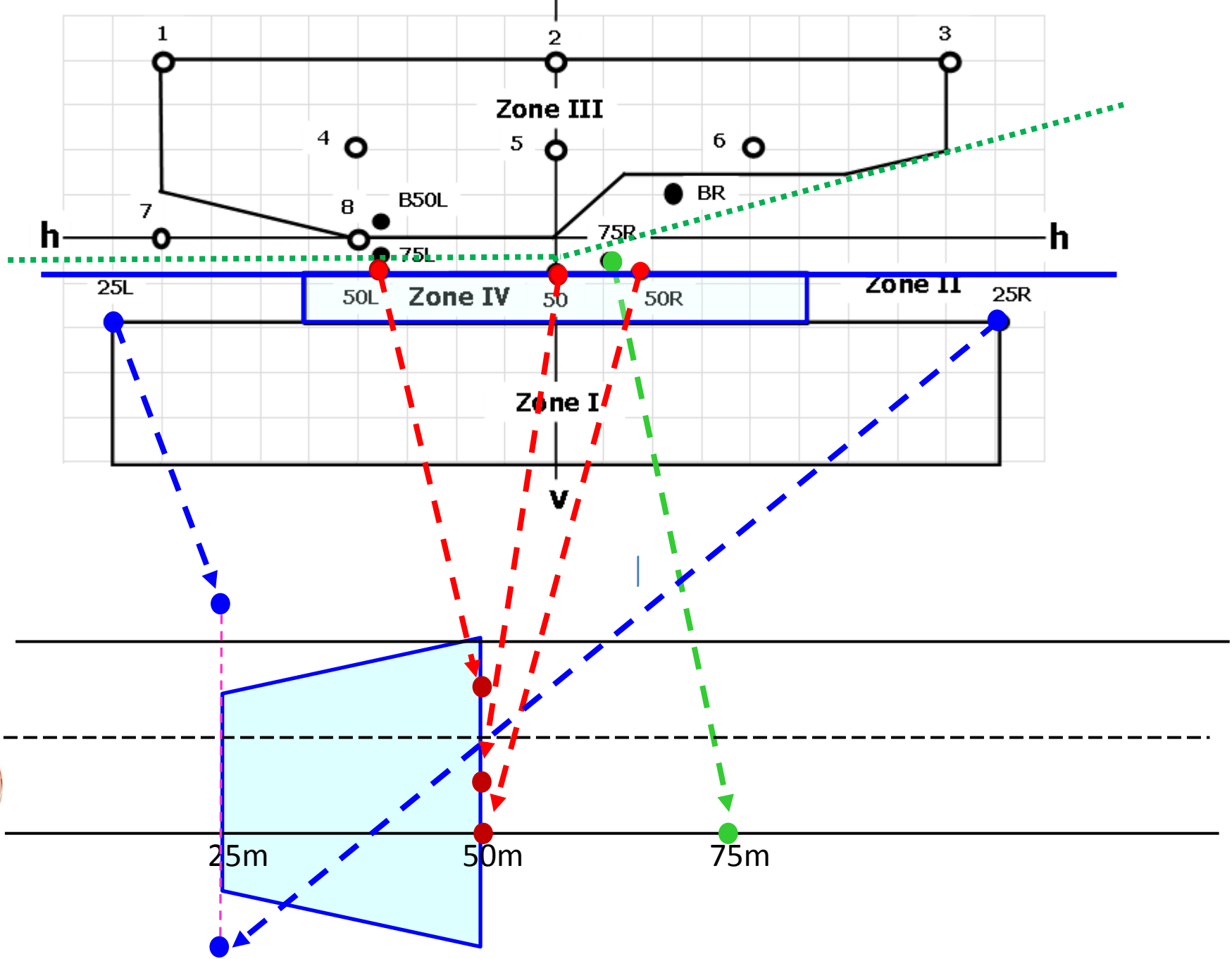
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# PRESENT STATE OF REGULATION (SCREEN REQUIREMENTS)

$H=0.75m, l=1\%D$



# TRANSLATION OF SCREEN PHOTOMETRY TO THE ROAD $H=0.75m$ , $I=1\%D$



## TRANSLATION OF SCREEN PHOTOMETRY VALUES

TO THE ROAD (H=0.75m, I=1%D)

**For 75R** the minimum value is 16.8 lux @25m

Illuminance at 75 m =  $16.8 / (75/25)^2 = 1.87 \text{ Lux}$  at the road surface.

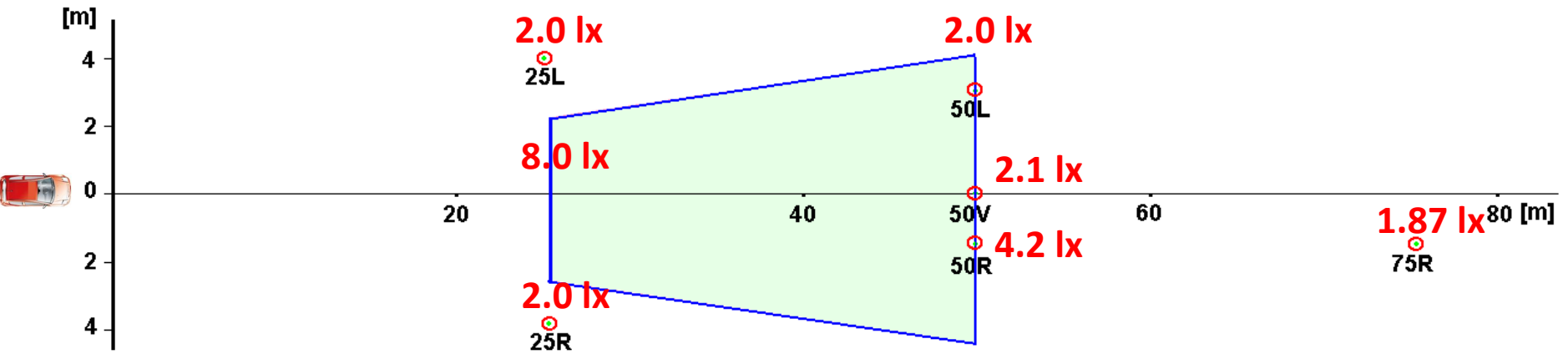
**For 50R** the minimum value is 16.8 lux @25m

Illuminance at 50m =  $16.8 / (50/25)^2 = 4.2 \text{ Lux}$  at the road surface.

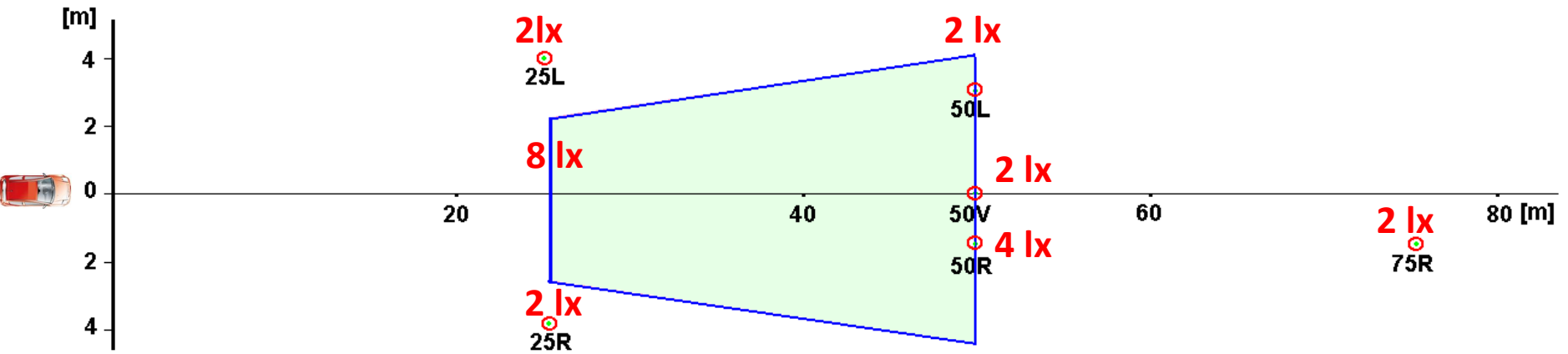
**For 50V** the minimum value is 8.4 lux @25m

Illuminance at 50m =  $8.4 / (50/25)^2 = 2.1 \text{ Lux}$  at the road surface.

# PRESENT STATE (Reg. No 112)

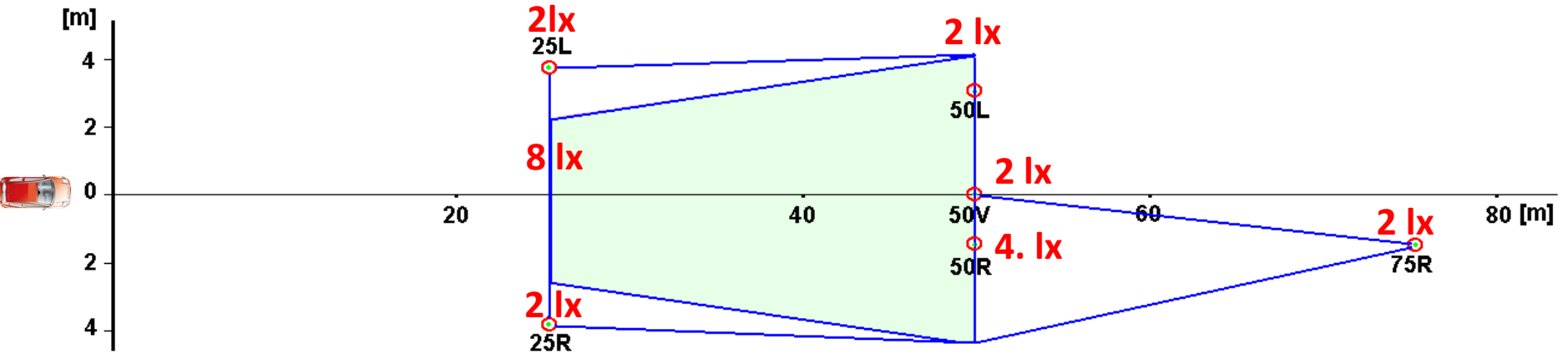


# PRESENT STATE (Reg. No 112) (rounded to full lux)

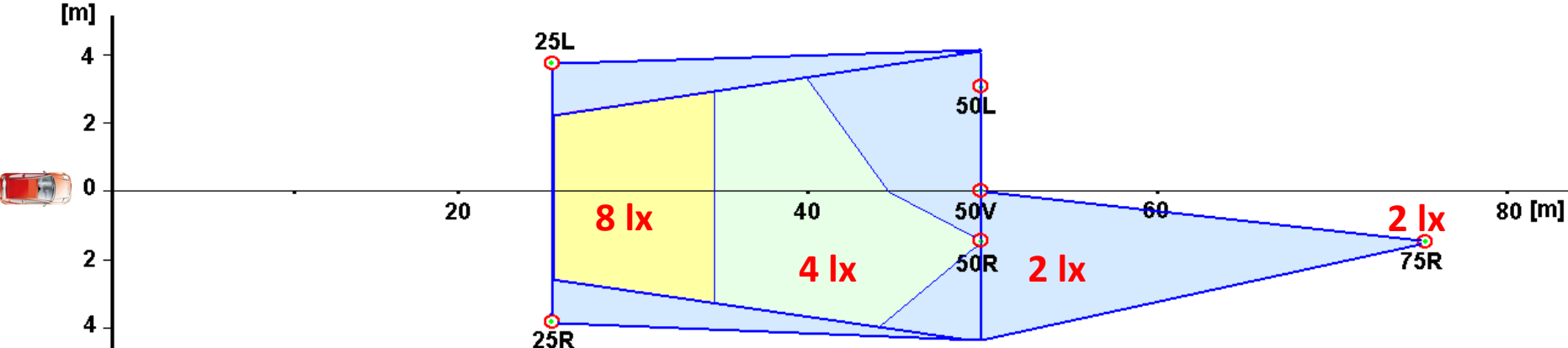


# PRESENT STATE

(approximation for „uniformity”)

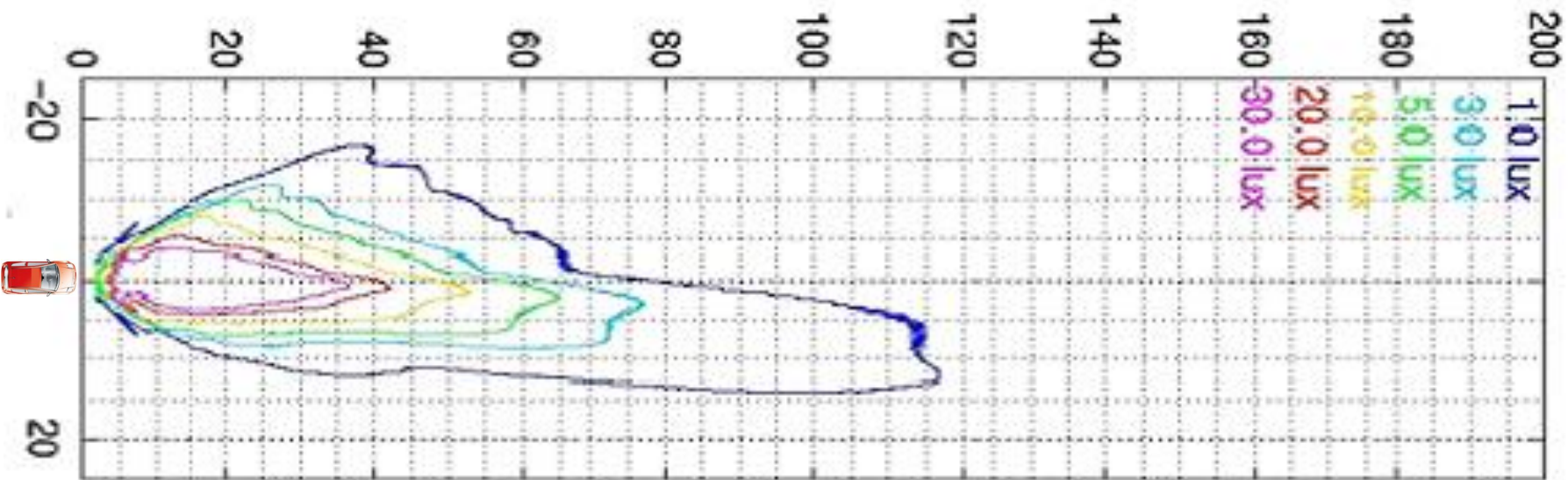
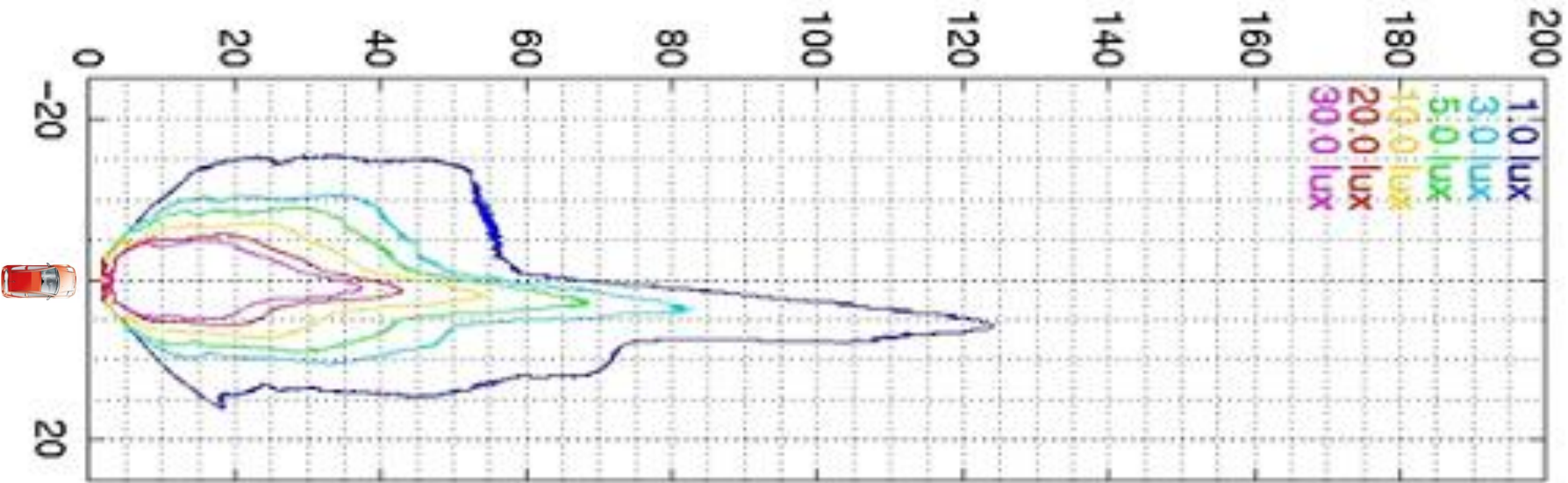


# PROPOSAL for approximation

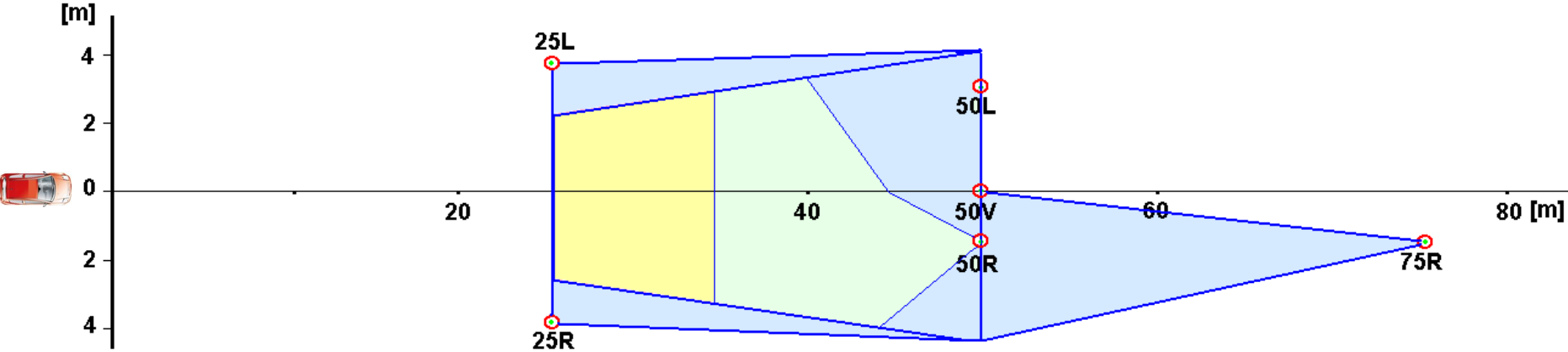




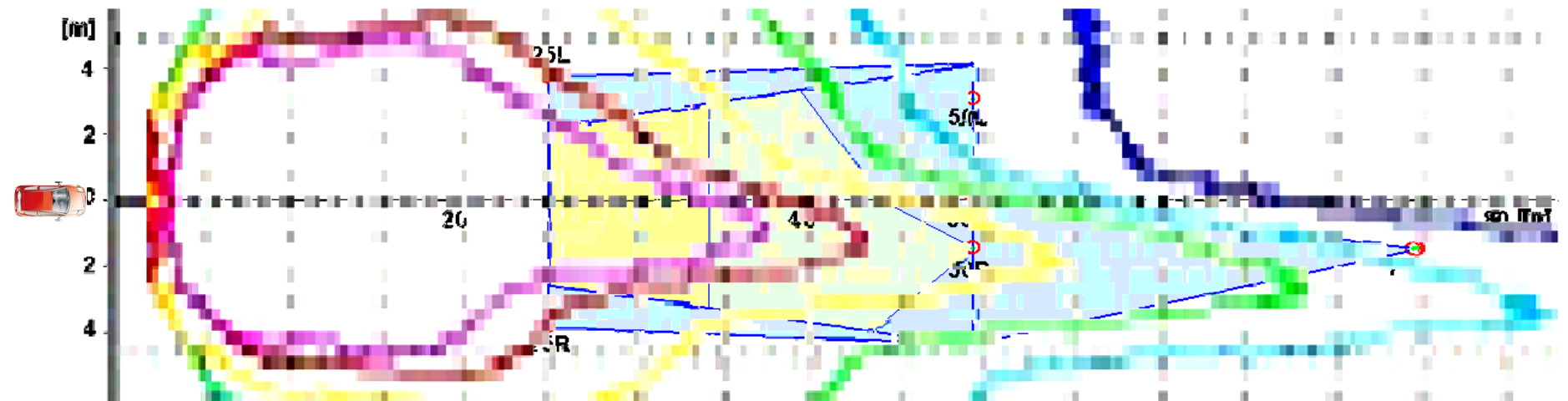
# REAL HEADLAMPS



# REAL HEADLAMPS REGULATION PRESENT REGULATORY STATE

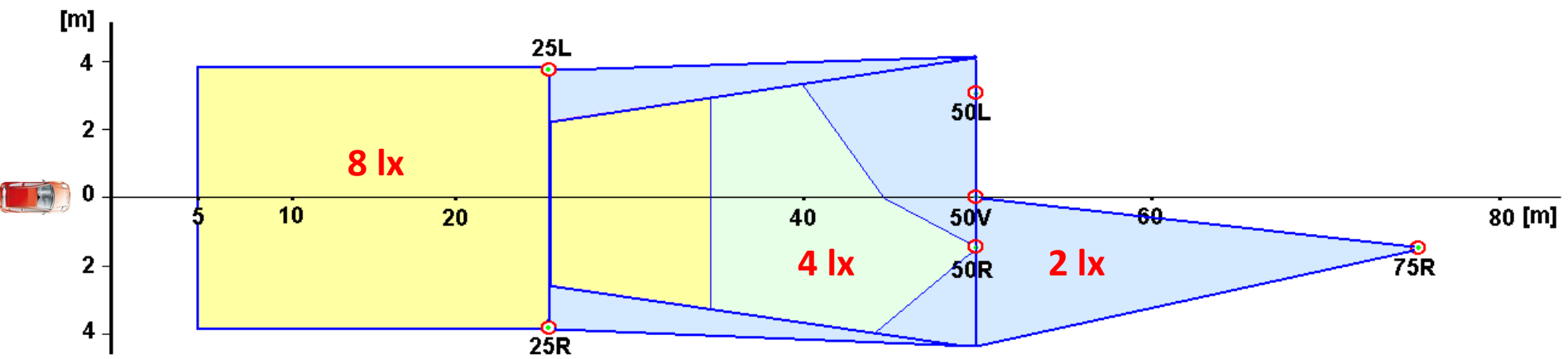


# REAL HEADLAMPS



# PROPOSAL

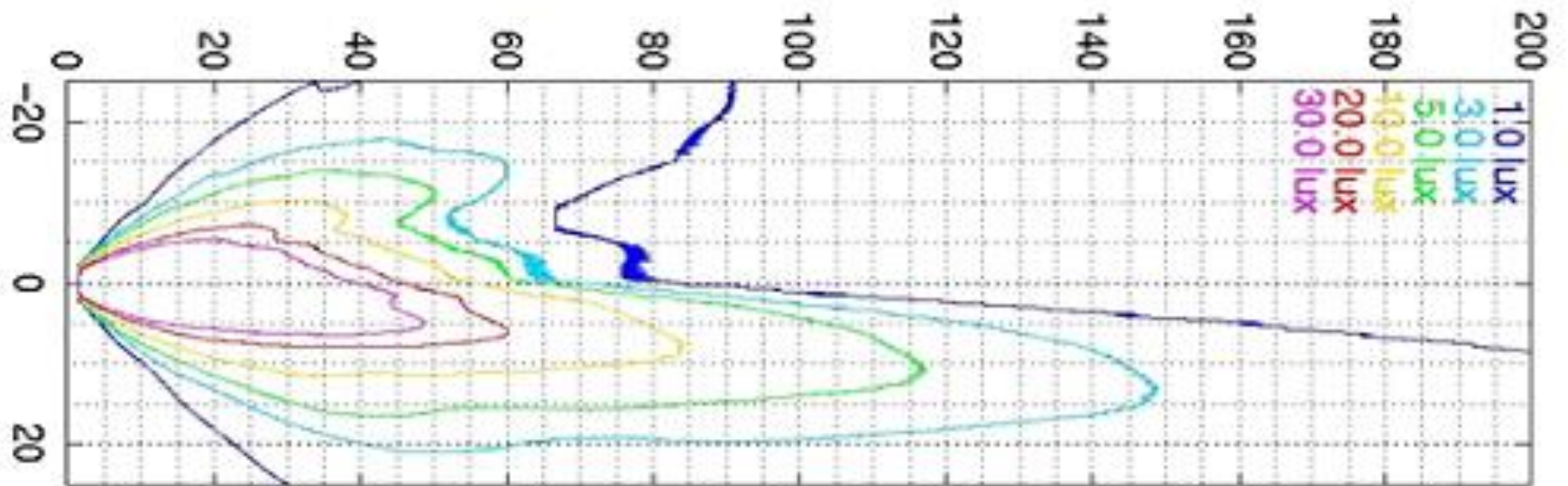
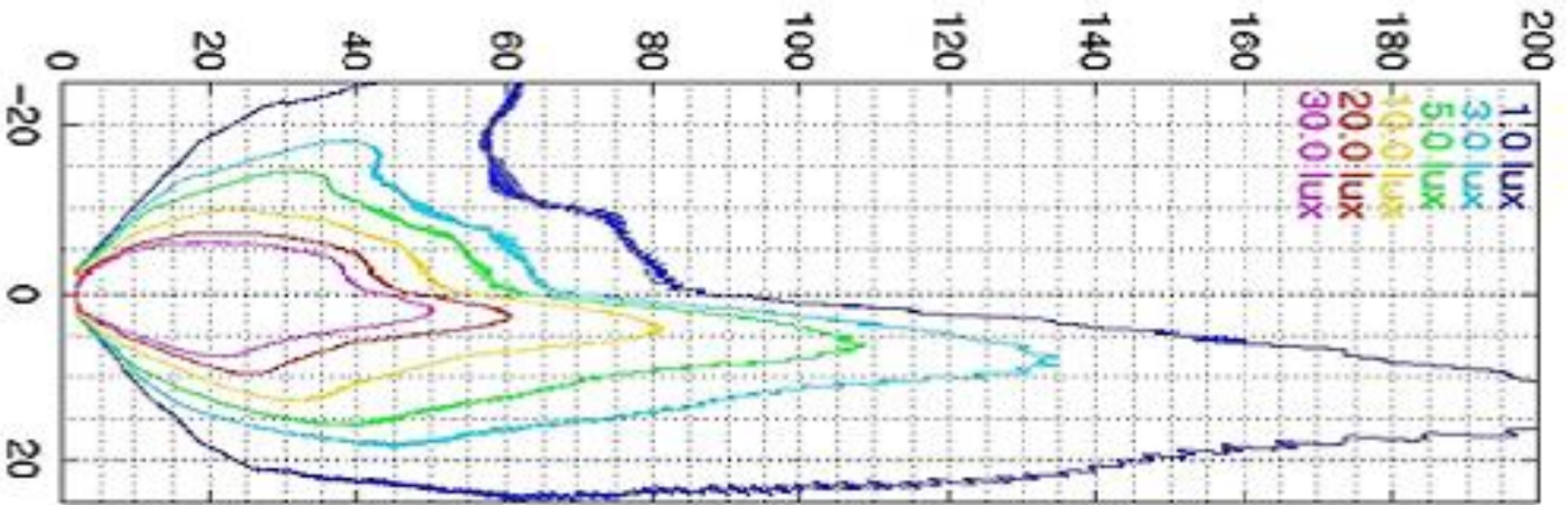
## Requirements defined at the road surface



# PROPOSAL

- MEASUREMENT WILL BE DONE IDENTICAL AS TODAY (PHOTOGONIOMETRICAL)
- REQUIRED VALUES WILL NOT CHANGE !!!
- FLUX LIMIT WILL BE NOT NEEDED !!!
- ROAD ILLUMINATION WILL BE APPROPRIATE
- NO „EXOTIC“ LIGHT DISTRIBUTIONS

# HID headlamps – similarly defined





**THANK YOU FOR YOUR  
ATTENTION**