Submitted by the expert from Poland

Informal document **GRE-81-16** (81st GRE, 15–18 April 2019, agenda item 4)

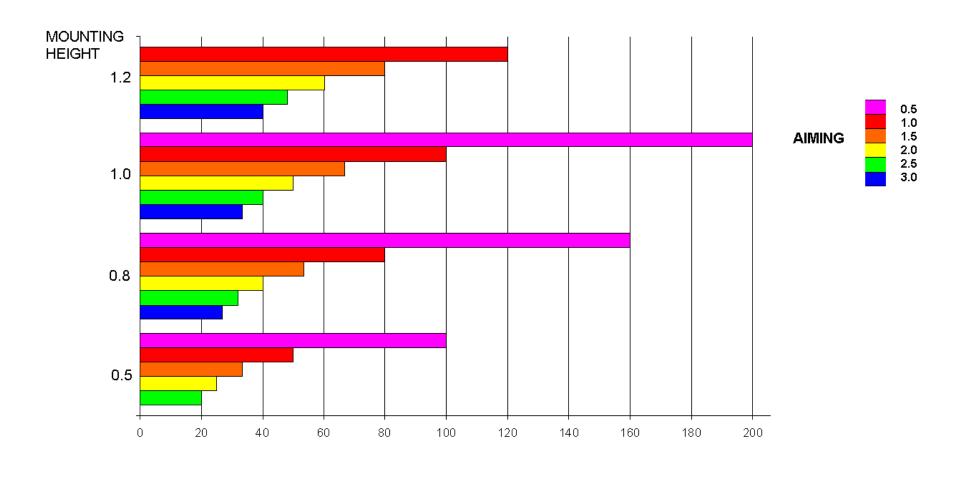
BOX JUSTIFICATION for GRE-81-13

Poland

15 April 2019

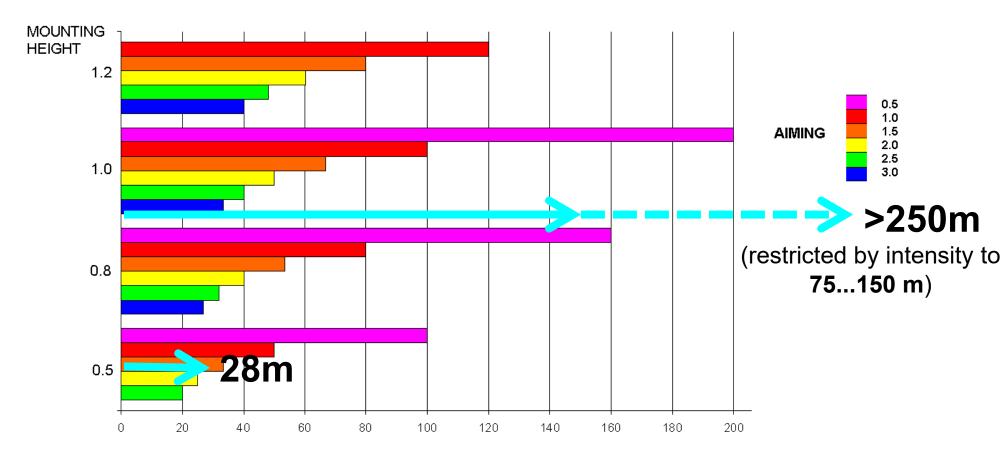
Road illumination distance in present Reg. 48

GRE-65-30





Road illumination distance proposed in ECE/TRANS/WP.29/ GRE/2019/3

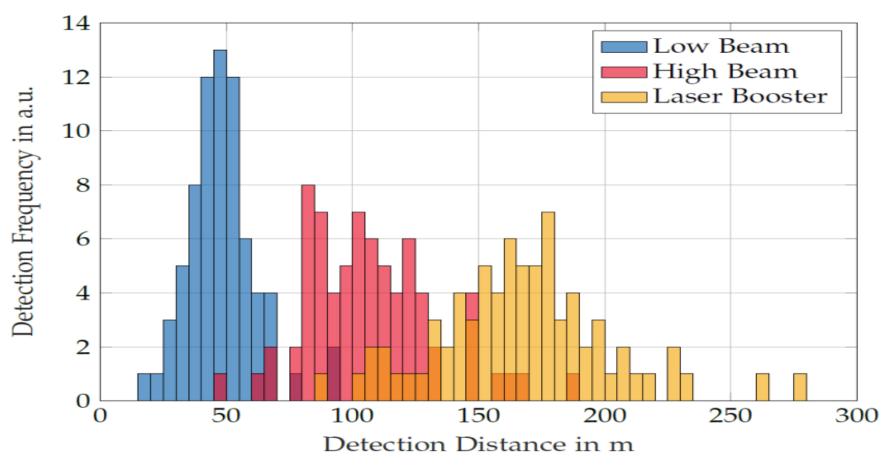


GRE/2019/3



Detection distance for different kind of headlamps (20m – 100 m)

GTB
Glare and
Visibility
Forum,
Geneva,
22 October
2018

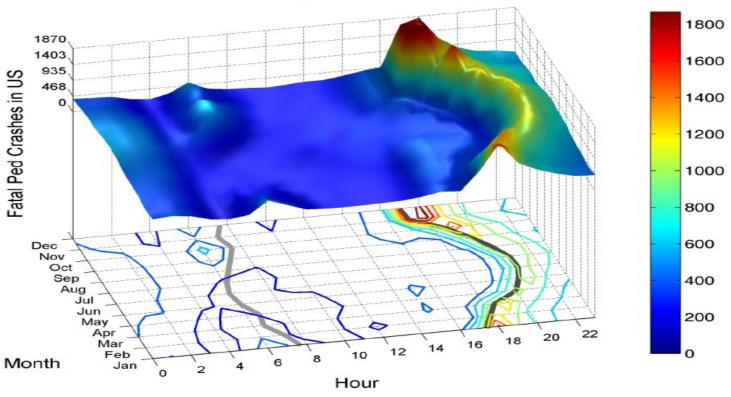




J. Kobbert, K. Kosmas, T. Khanh

PEDESTRIAN FATALITIES IN RELATION TO MONTH AND DAY HOUR

Pedestrian deaths FARS, 1987-2003



GTB
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Visibility
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Geneva,
22 October
2018



DARKNESS HAS VERY DIFFERENT EFFECTS BY CRASH TYPE

For fatal crashes, darkness increases risk by factors of:

- Two-vehicle 1.33

- Road departure 0.99

- Pedestrian 4.14

- **Animal** 4.60

M. J. Flannagan UMTRI

GTB
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Visibility
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Geneva,
22 October
2018



ACCIDENTS WITH PEDESTRIAN WITHIN ONE HOUR BEFORE AND AFTER SUNSET OUTSIDE BUILT-UP AREAS

NEARLY THE SAME CLOCK HOURS (16:00-17:30 DEPENDING ON GEOGRAPHIC CO-ORDINATES)

Poland

2013

2017

7 DAYS BEFORE AND AFTER CHANGING TIME FROM SUMMER TO WINTER

8% ACCIDENTS "BEFORE" 92% ACCIDENTS "AFTER"

FOR PEDESTRIAN ACCIDENTS IN DARK RISK INCREASED BY FACTOR OF 12



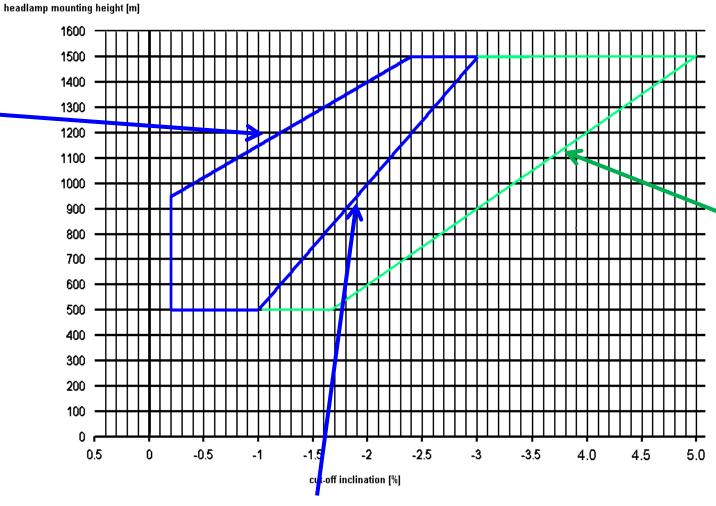
NO RESPONSE FROM MANUFACTURERS SIDE FOR QUESTION REGARDING REQUEST FOR 1,6% AIMING RANGE (VGL-10-06)

(STATIC) AUTOMATIC LEVELLING DEVICES FOR MANY USED SYSTEMS CAN CONTROL LEVELLING BETTER THAN POSSIBLE TO MEASURE

STILL POSSIBLE TO USE MANUAL LEVELLING DEVICE

The same glare restriction beyond 25 m

PROPOSAL



[Min 30 m for special (restricted speed) vehicle]

Min 50m road illumination distance for normal vehicle

Thank you for attention

