

# How to control and reduce Glare by improving Safety and Visual Performance

**DVN Glare Forum** 

18 February 2025

#### **MOTORWORLD MUNICH**

Am Ausbesserungswerk 8, 80939 München (Germany)

Dr. Rainer NEUMANN WG-SVP Chairman



# Eureka Vedilis - Research Project (1988 - 1992)

Study on the influence of the apparent luminance for different headlamp sizes on discomfort glare (By TNO Prof. Alferdinck, Netherlands)



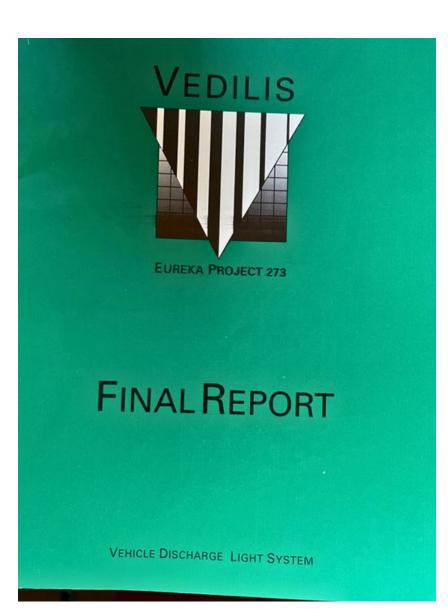
Tests were executed both statically and dynamically



#### **RESULTS**

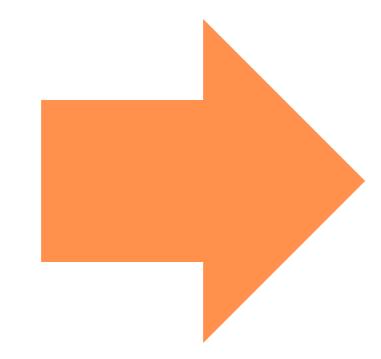
No significant difference between incandescent and HID light sources was assessed.

First Xenon headlamp in production 1990





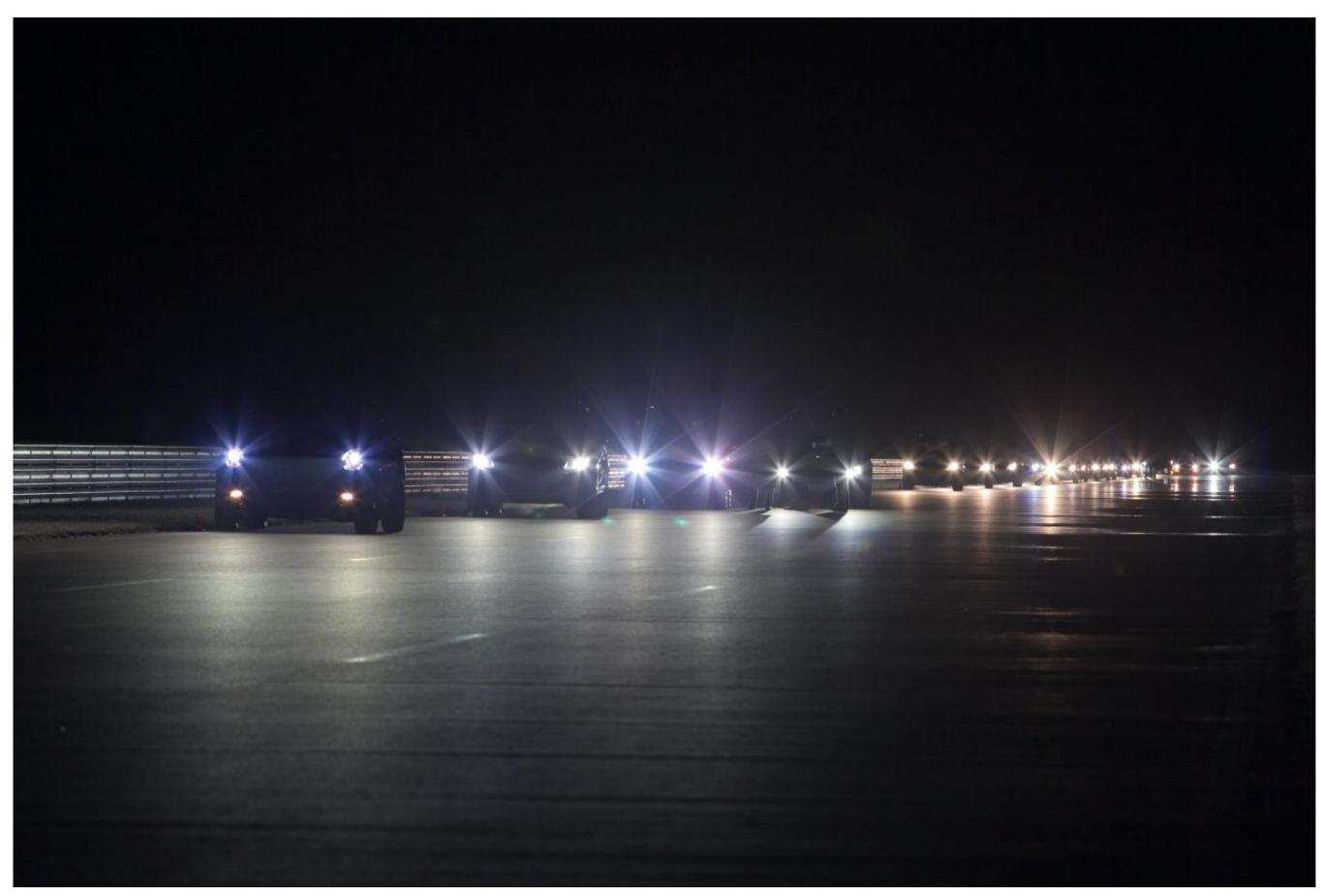
# Klettwitz (2012) Study on necessity of requesting a mandatory automatic levelling system







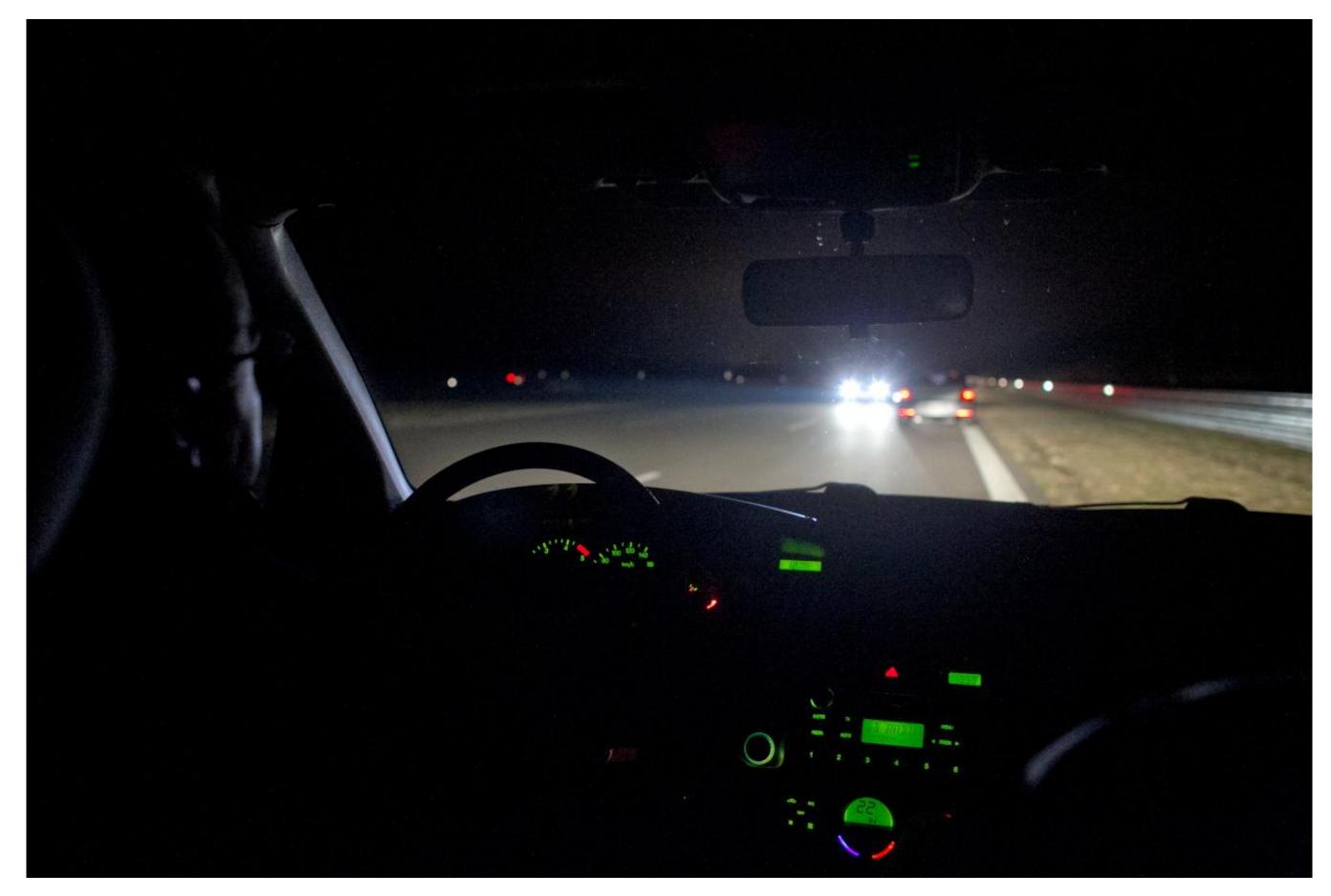










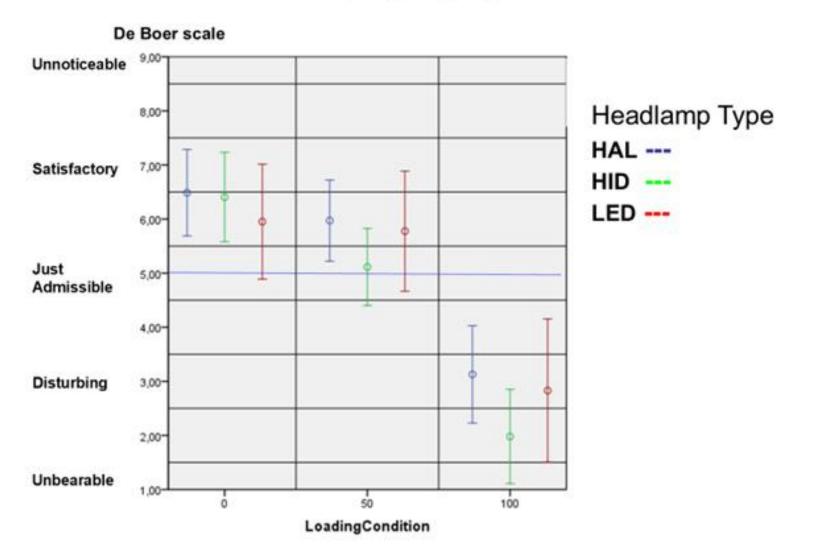








# Results for Halogen, Xenon, LED



## Main Findings:

Full Loading and Misaiming leads to unbearable de Boer results

<sup>\*</sup> Width of the bars covers app. 70% of all ratings



# Summary & Outlook

### **TARGET**

Implement existing full automatic solutions such as:

- Auto levelling
- Auto Light (automatic low beam / high beam)
- AFS (e.g. adverse weather light)
- ADB

#### **IDEAS FOR THE FUTURE**

- Automatic headlamp re-aiming system
- Automatic and effective headlamp cleaning system
- Automatic controlled best fit light distribution
- Enforcement and education





## CONTACTS

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