

Human Centric Lighting for Automotive Application – Realistic Benefit?

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L-LAB – Research Institute for Automotive Lighting



Research Partner

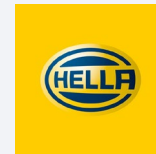


Research Network



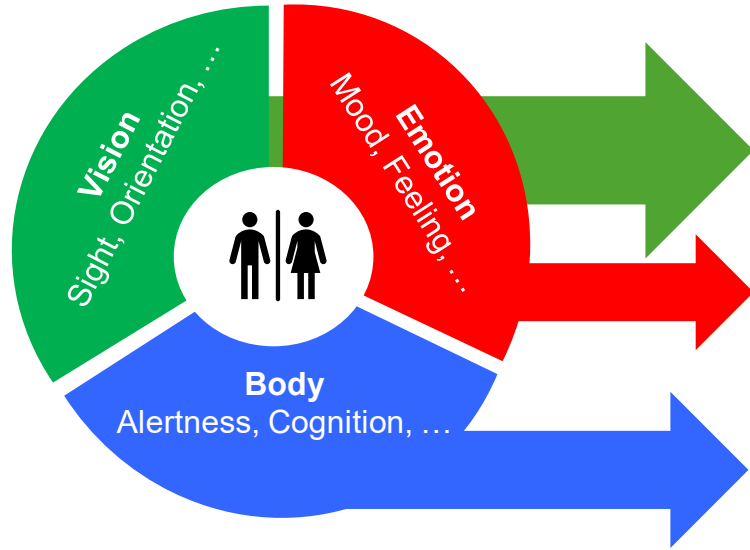
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Human Centric Lighting for Automotive Application

Light has an effect on

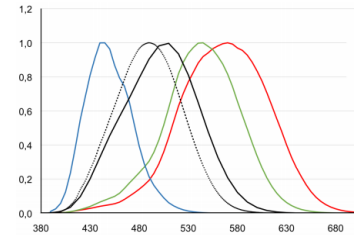
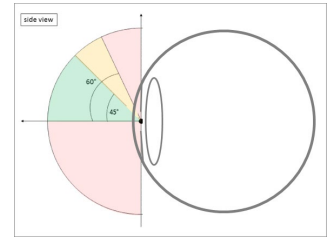


Automotive Lighting



Would be a great benefit, but realistic chance?

HCL depends among others on



Example planning recommendation:

- E_h : 800-1000 lx
- E_{cornea} : 250 lx

Possible Application for Interior Lighting

Exemplary driving scenario at night with an additional *HCL-Light* for acceptance evaluation @ HELLA laboratories

Spectrally tunable light panel to set a corresponding illuminance at the eye

Driving task – detection of objects and orientation in the traffic area during nighttime



Questions regarding activating effects:

- How much light is needed to stimulate the driver's attention?
- How much light is acceptable without disturbing the driver's sight?
- How much light do drivers accept as interior lighting in a nighttime-scenario?

Bachelor-thesis @ HELLA

Summary

- ***Human Centric Lighting*** in the sense of activating the driver would be a great benefit for automotive interior lighting, but today's know-how about needed light levels and lighting systems for verifiable effects is still missing
- **What can we do for you:**
Support for conception and implementation of interior lighting systems and evaluation of lighting solutions
- **What can you do for us:**
Provide support and know-how for needed light settings to assist the driver's attention

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