

Guidelight

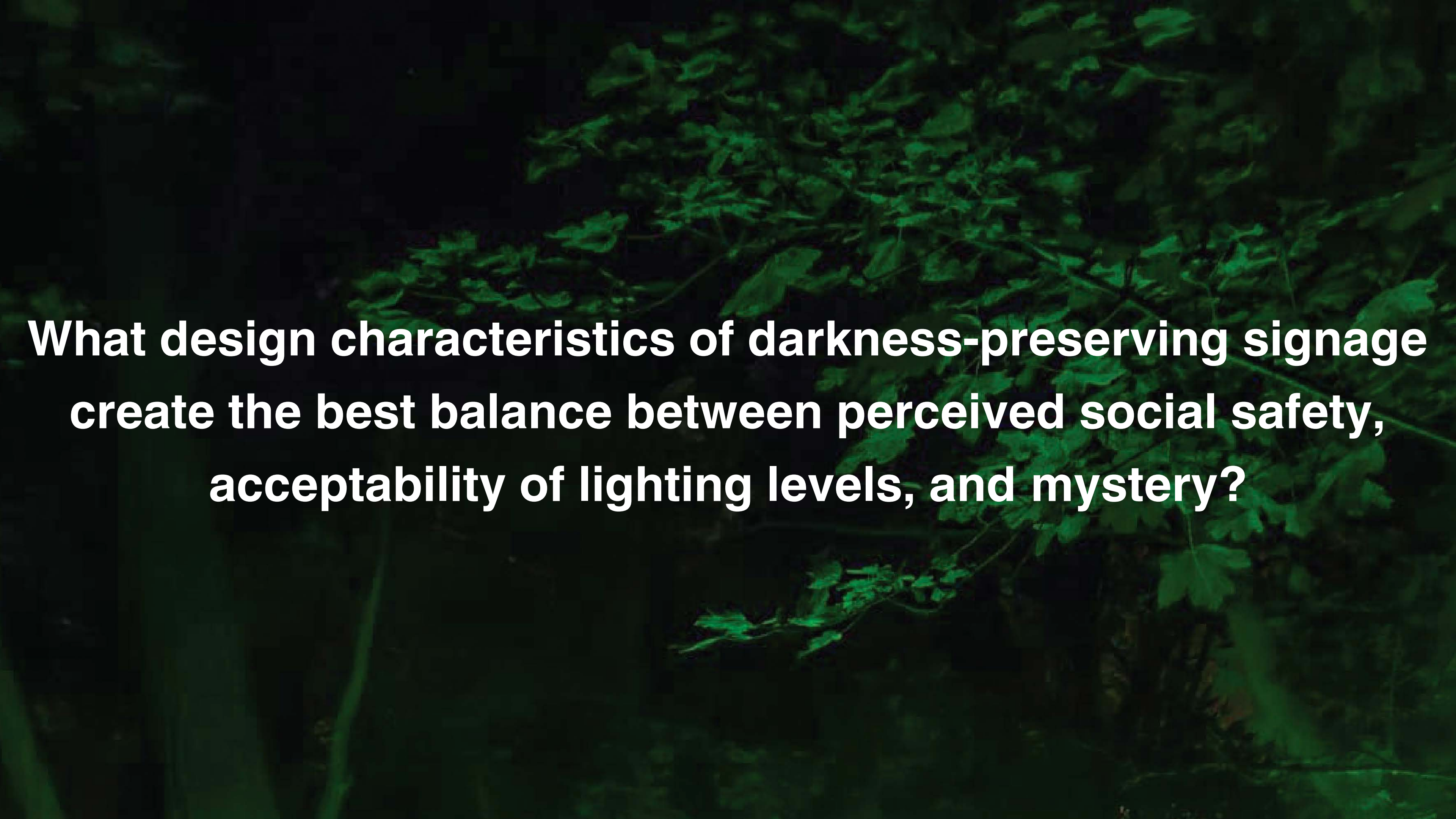


DARKER SKY

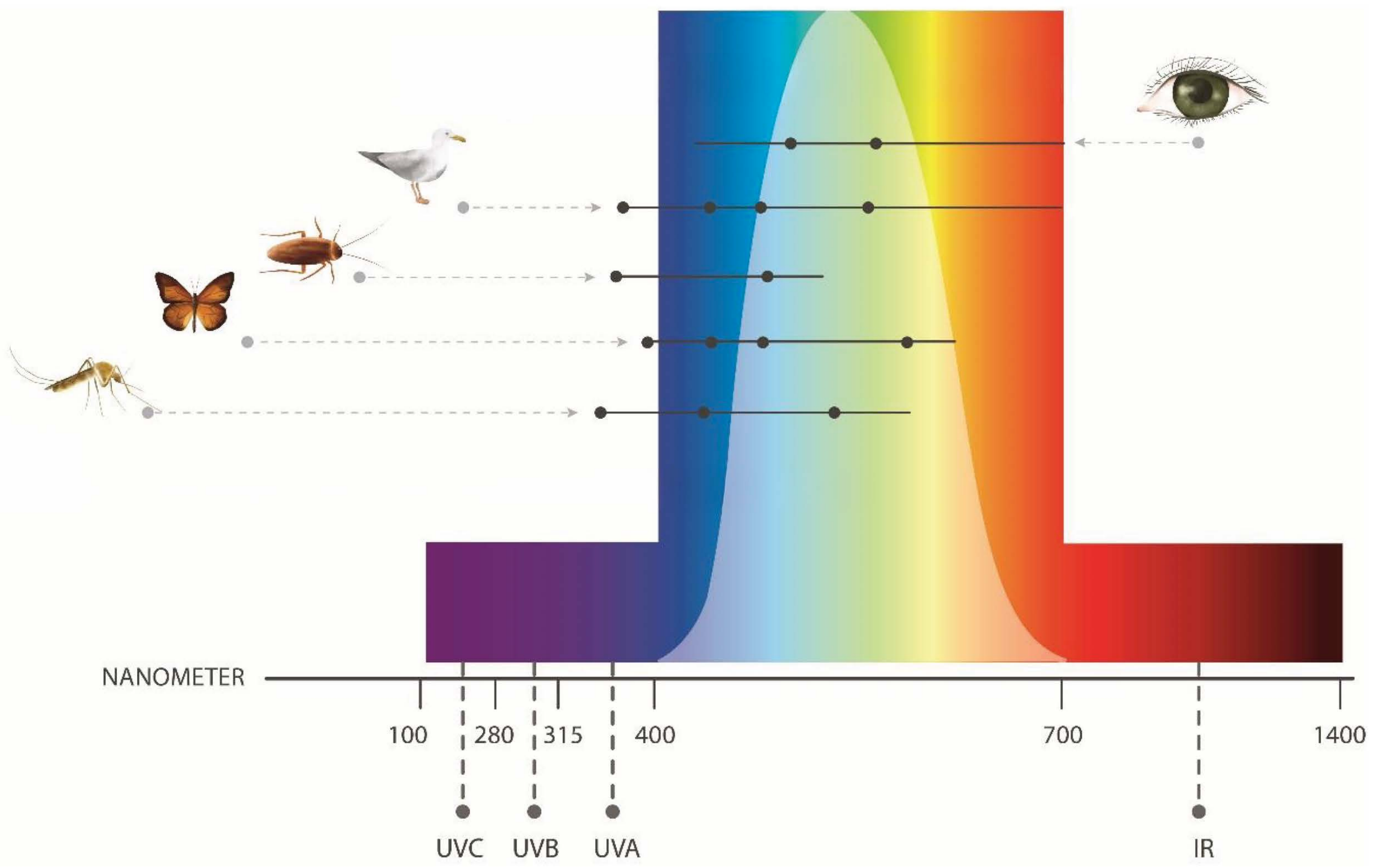
Interreg
North Sea



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**What design characteristics of darkness-preserving signage
create the best balance between perceived social safety,
acceptability of lighting levels, and mystery?**



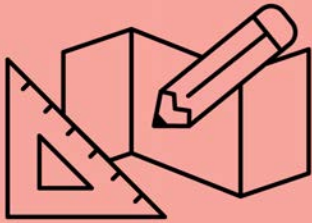






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PROTOTYPE



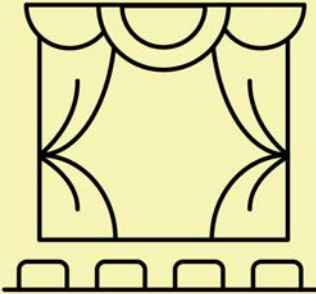
An early build of the innovation, not market-ready but far enough to be used for testing





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TRY-OUT



Organizing an experiment in which users get to try the innovation out early



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STRESS TEST

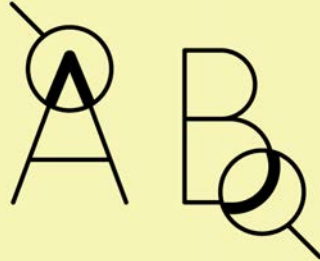


A test to measure exactly how much pressure the innovation can handle before problems occur



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A/B TEST



Comparing two versions of the innovation to figure out which one performs better





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SURVEY



A questionnaire used to collect quantitative data from a variety of users



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USER INTERVIEW



Interviewing existing or potential users to get qualitative feedback



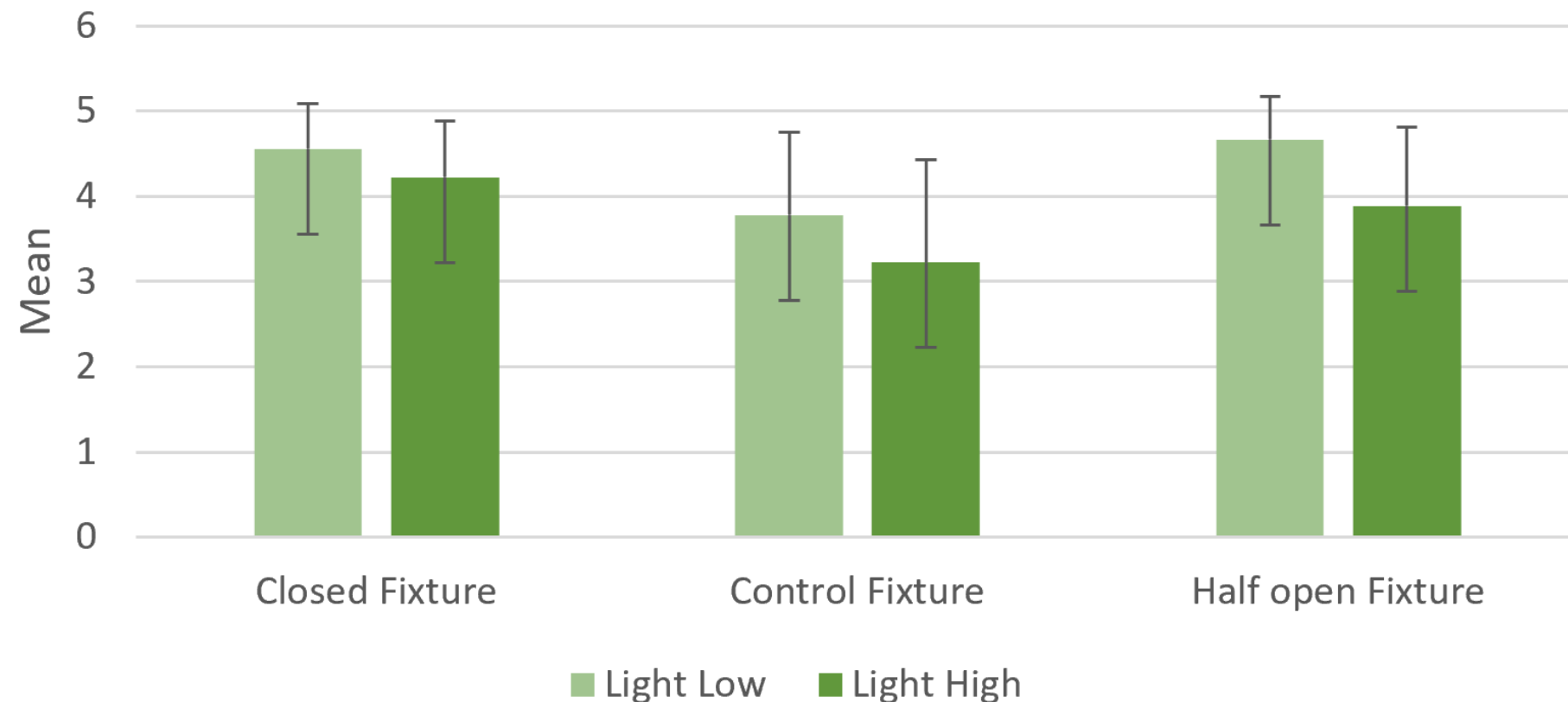
	Closed fixture	Half open fixture	Control group
Low	Safety Brightness Mystery	Safety Brightness Mystery	Safety Brightness Mystery
High	Safety Brightness Mystery	Safety Brightness Mystery	Safety Brightness Mystery

Perceived social safety

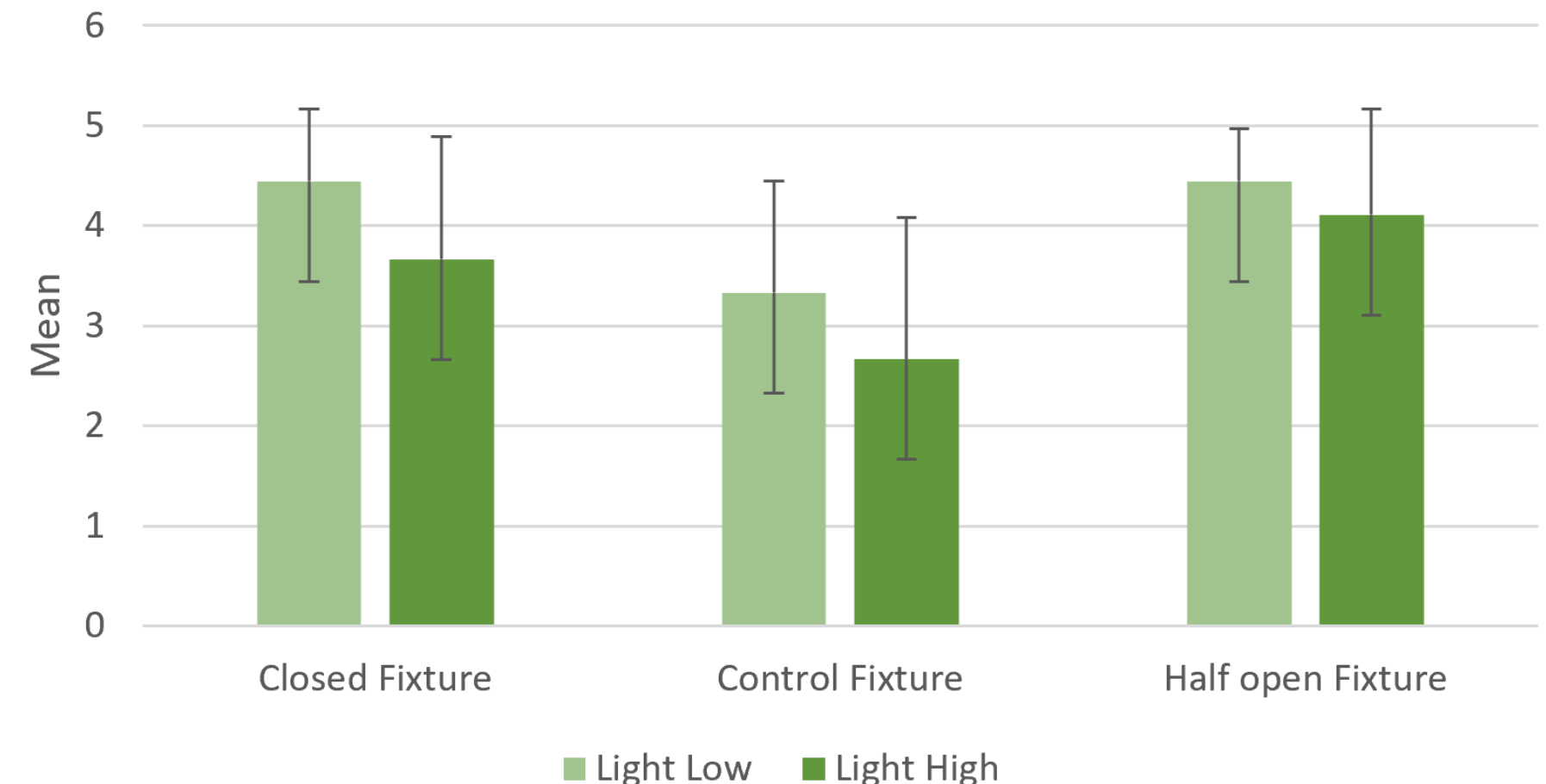
Key findings:

- Control fixture had the lowest ratings
- “The brighter the light, the less they could see of the surrounding environment”

"I would go a long way around to avoid this place"



"I have an unpleasant feeling at this place"

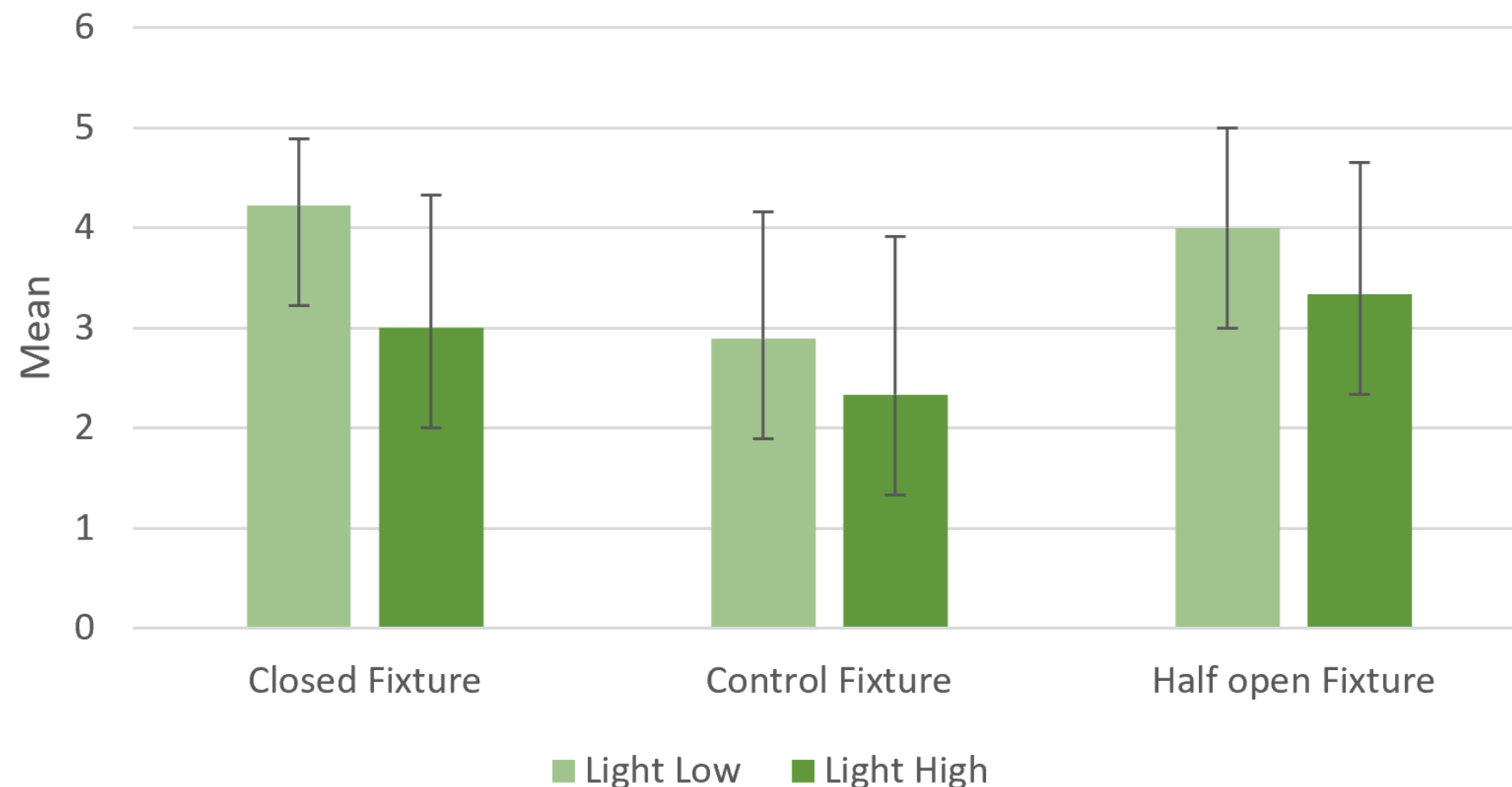


Acceptability of lighting levels

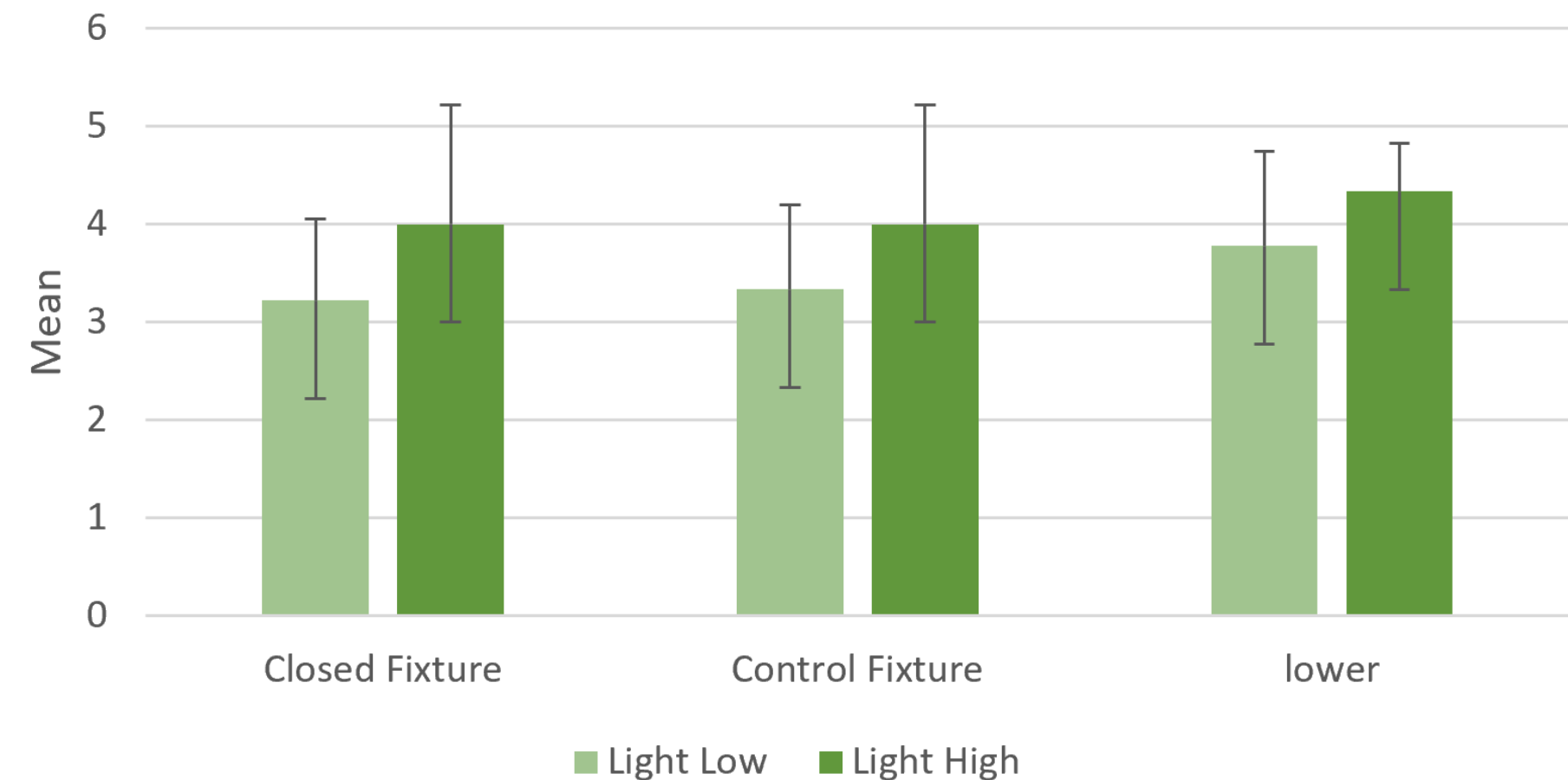
Key findings:

- Control fixture had the lowest ratings
- Lower light was preferred for comfort, while higher light was preferred for visibility

"The lighting felt comfortable"



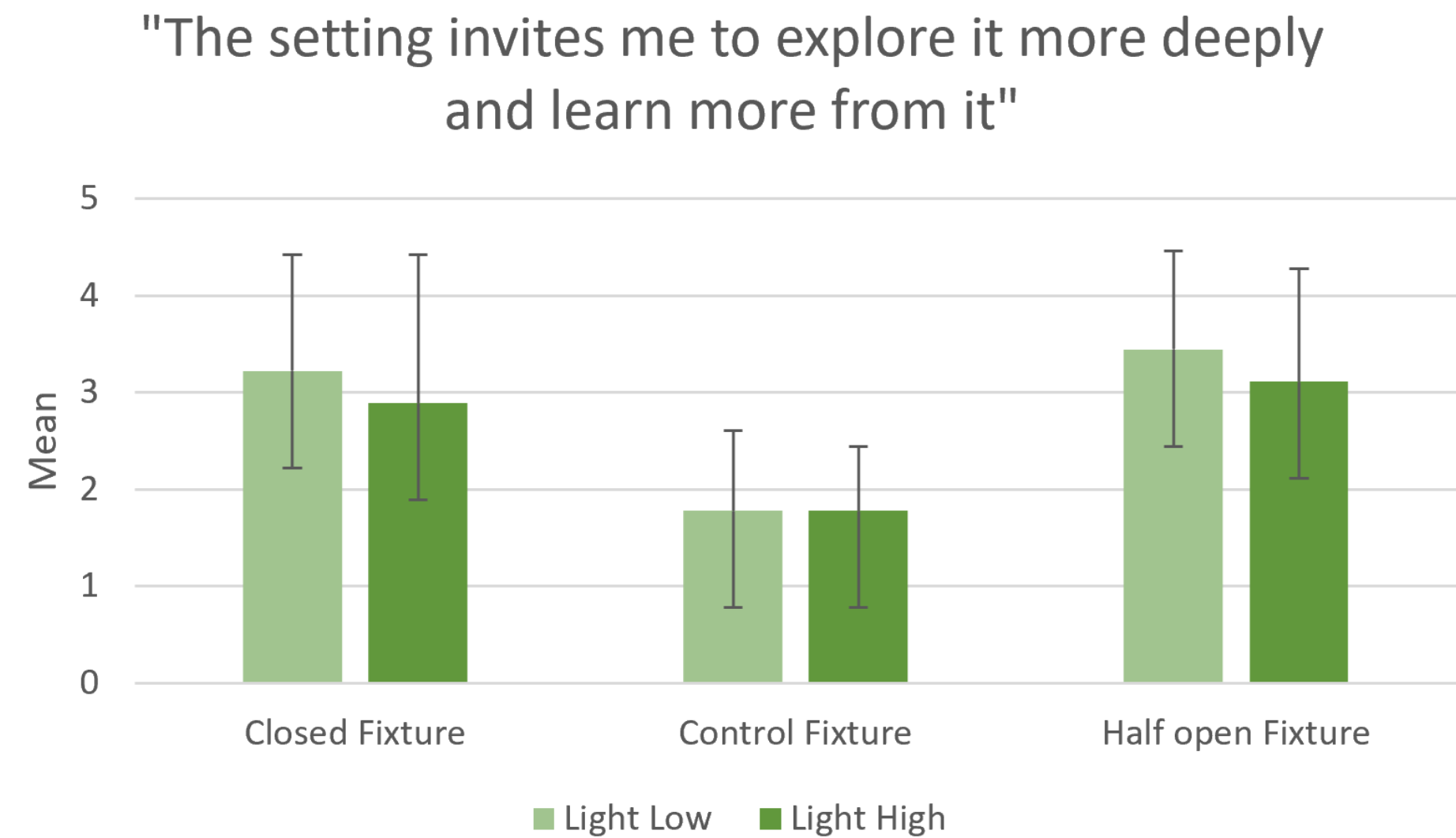
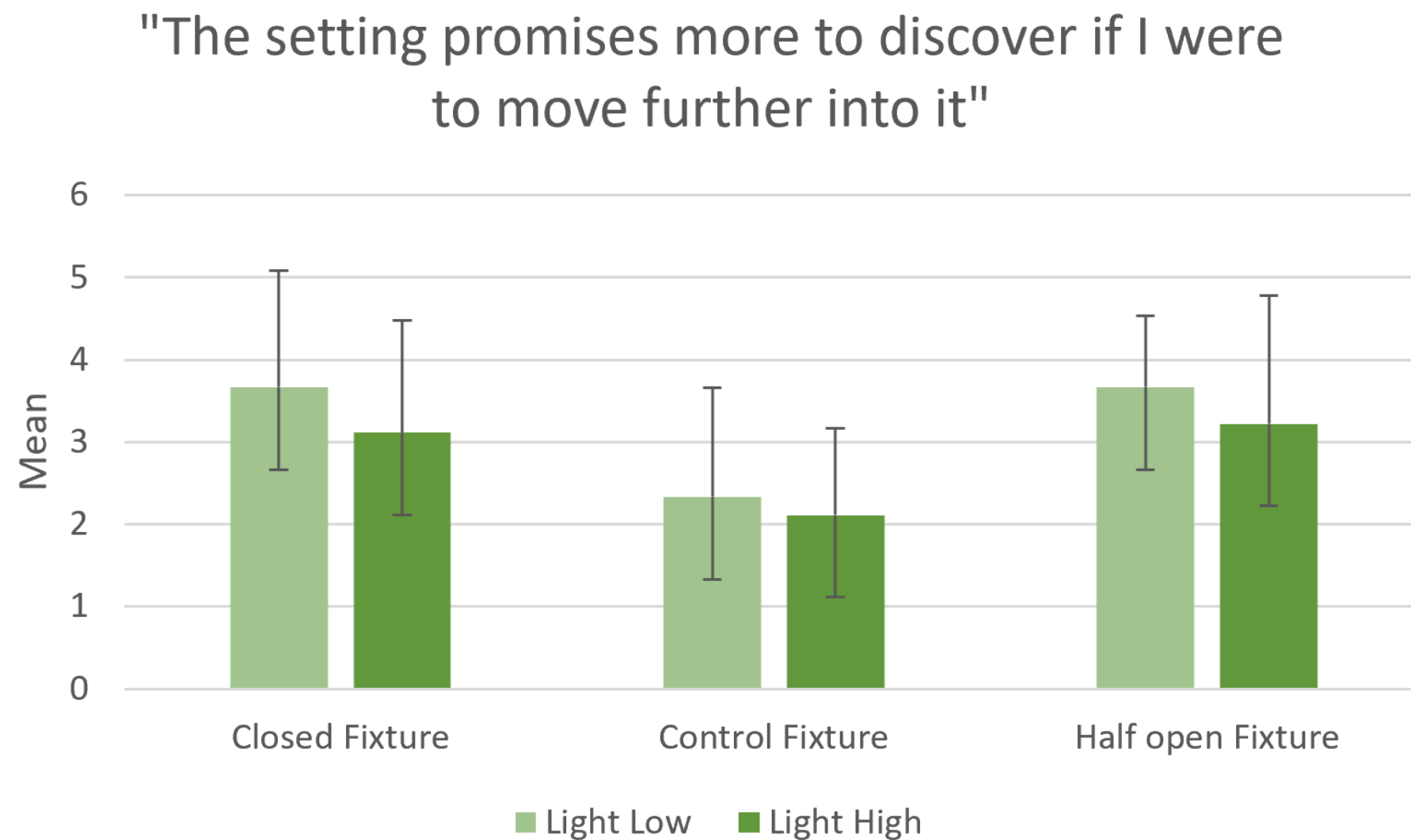
"The lighting provided enough visibility"



Mystery

Key findings:

- Control fixture had the lowest mystery ratings.
- Lower light seemed to increase mystery, but this was not significant ($p = .209$, $p = .299$).
- Participants often described the half-open fixture as “magical” or “cute.”



Concrete implication festival

Key findings lighting:

- Different areas need different lighting - no single light level works everywhere.
- Control fixture was bright but caused glare and made the surroundings look darker, so it's not suitable for natural areas.
- Higher lighting levels are recommended on uneven walking paths, where visibility and orientation are essential. Only when glare is controlled.
- In darker wooded areas with even, long, and predictable straight paths, where orientation is not essential, lower lighting levels are especially effective, as they maintain the intimate, immersive ambiance that is central to the festival experience.

Concrete implication festival

Key findings fixture:

- Half-open fixture works best when visibility is important, but it needs a redesign so the bottom is more closed and the LEDs are not visible.
- Visible LEDs caused glare, which reduced comfort and made the light feel harsh.
- For mystery and safety, both the closed and half-open fixtures work equally well, since they scored similar levels of mystery and acceptability.



LIGHT
CHALLENGE

Partners



**Co-funded by
the European Union**

The Light Challenge is part of:



DARKER SKY

Interreg
North Sea



Co-funded by
the European Union

Carried out by:



Partners:



LAB
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