

What's new with Evalglare

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Radiance Workshop 2024

Evalglare – what's new

New version 3.05

- Bugfixes and changes in features and default settings since 2.0 version
- Outlook

Evalglare – what's new

Calculation of background luminance
(important for UGR, UGP, CGI, not for DGP), since v2.05

- New default method: According to CIE:

$$L_b = (E_v - E_{\text{dir}}) / \pi$$

- -q option for the choice of calculation mode:

option “0” : CIE method (default)

option “1” : mathematical average background luminance (no GS)

option “2” : $L_b = E_v / \pi$

Evalglare – what's new

Glare source detection (from v2.05)

- New default multiplier-value when using `-t` or `-T`: 5
(to be consistent with publications)
Manual setting using `-b multiplier` is still possible
- Default glare source detection method: Absolut threshold 2000cd/m^2
(Publication Pierson et al.)

Evalglare – what's new

Glare source position (from v2.13)

- Position-index below line of sight is corrected and based on the modified equation from Iwata and Osterhaus 2010 (Bugfix)
- Center of glare source calculation based on $L^*\omega$ (Bugfix)

Evalglare – what's new

Outputs

- Contribution to E_v per glare source, zone or masking area added
- No of pixels output for zonal analysis

Metrics

- VCP calculation: Error function adjusted (Bugfix)
- PGSV_con, PGSV_sat corrected (Bugfix)
- Revised UGP-equation implemented (labelled as UGP2, original equation/output unchanged)

Evalglare – what's new

Corrections

- Low light correction of DGP:

Default now OFF !!! (since v2.14)

Problematic when on: Completely wrong results for full-façade and switched EC-glazing with visible sun!

With option `-C l+` low-light correction can be switched on manually.

For now only one correction mode implemented, but maybe more to come.

Evalglare – what's new

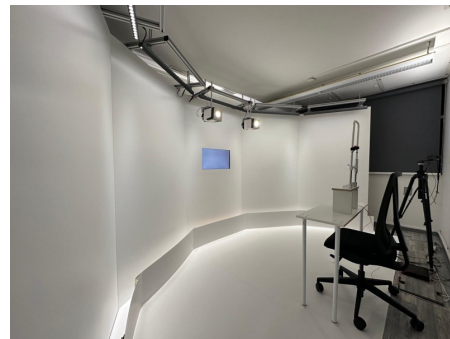
Outlook – current works

- We concentrate our current research on the question

“What is a glare source”

or better “When become bright areas in the field a view uncomfortable?”

Goal: Better “Input” for glare equations



Evalglare – what's new

Outlook – current works

- Next step: DGP update considering results from the last years to expand reliability in the upper and lower range, as well considering spectral/color impact.

Radiance Workshop 2025

At EPFL in Lausanne, Switzerland !



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In conjunction with a High Dynamic Range Imaging Workshop

As part of the project

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Co-funded by
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Radiance Workshop 2025

At EPFL in Lausanne, Switzerland !

Date will be fixed and announced in upcoming months (in 2024)

Problematic conflicts with

CIE Mid-term meeting in Vienna July 7-11th

IBPSA Brisbane, Australia Aug 24-27th

CISBAT Lausanne, Sep 3-5th

Semester start Sep 8th

A scenic landscape of a Swiss village, likely in the Jura region. The foreground shows terraced vineyards on a hillside, with a winding road. The middle ground features a cluster of houses and a church. In the background, a large blue lake (Lake Neuchâtel) is visible, with snow-capped mountains in the distance under a clear blue sky.

**Thank you very much
for your attention!**

Questions?