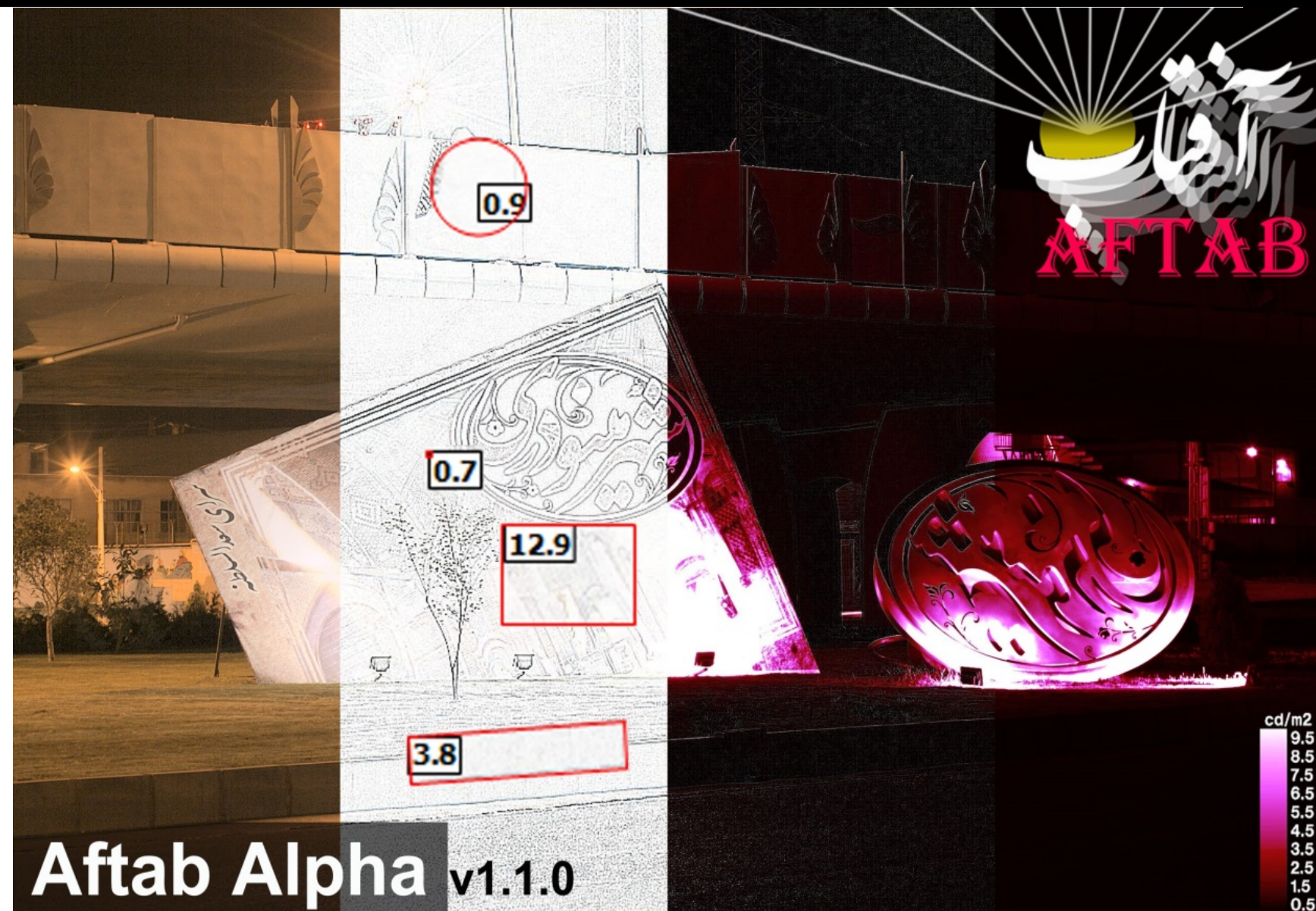
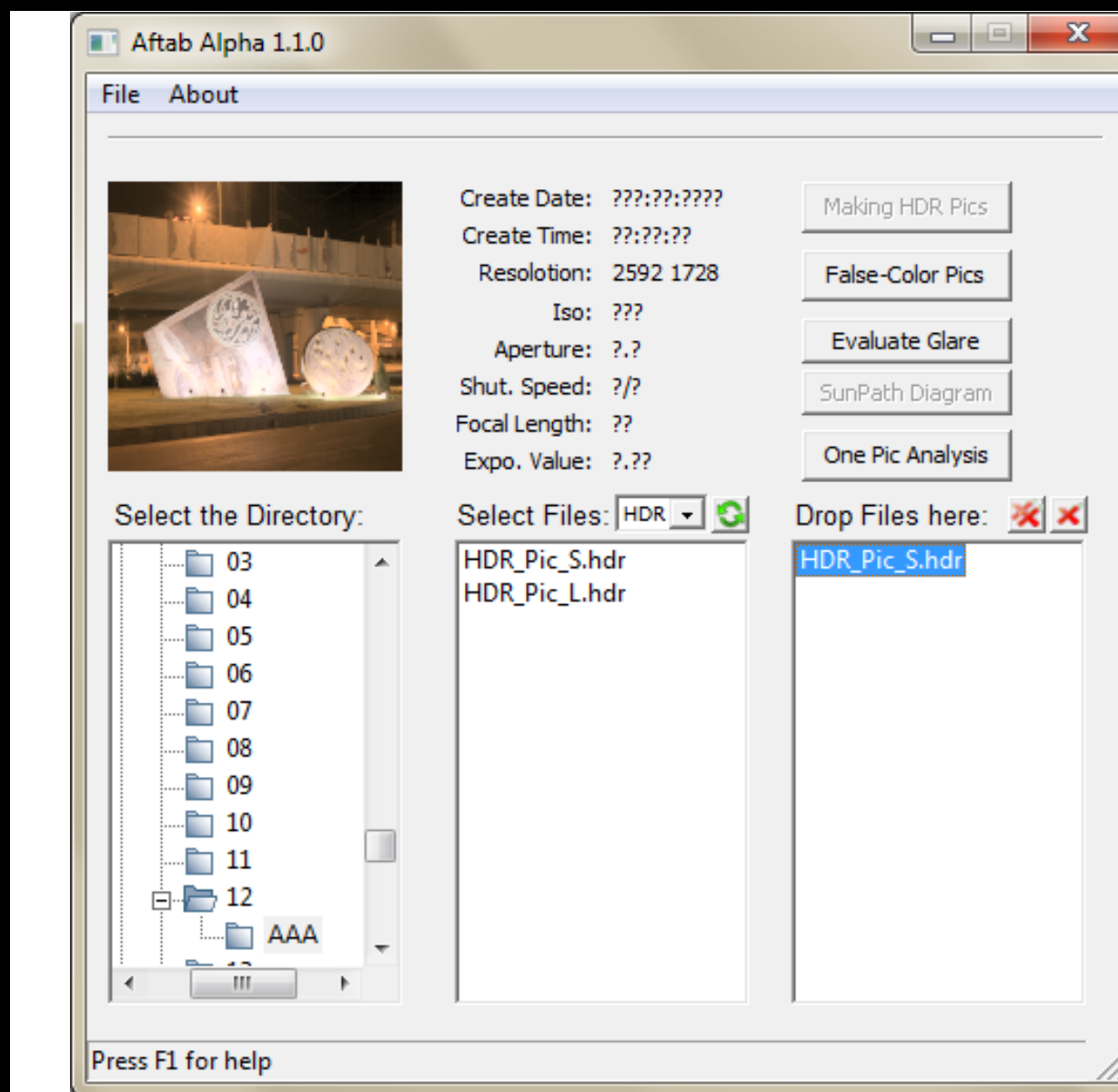


# A new HDR software

Camera Calibration, Creating HDR, Evaluating HDR, Glare Evaluation,  
Sunpath Diagram generator

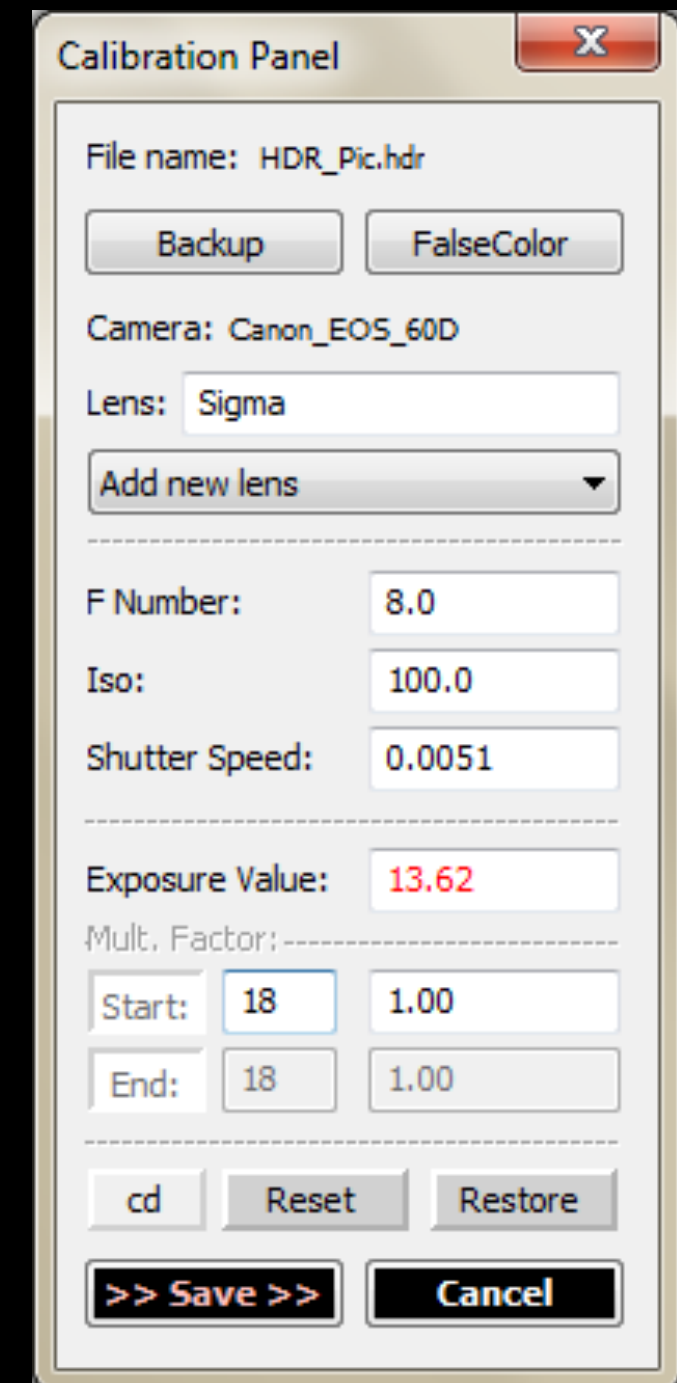
Written in Python with some commands scripted in C++  
With the help of some Radiance commands, evalglare, and dcraw



## Camera Calibration

For each specific camera and lens

- Based on an HDR image
- Based on one RAW image file
- Based on measuring lux level on A4 white paper (???)



The screenshot shows a 'Calibration Panel' dialog box with the following fields and controls:

- File name:** HDR\_Pic.hdr
- Buttons:** Backup, FalseColor
- Camera:** Canon\_EOS\_60D
- Lens:** Sigma
- Add new lens:** (dropdown menu)
- F Number:** 8.0
- Iso:** 100.0
- Shutter Speed:** 0.0051
- Exposure Value:** 13.62
- Mult. Factor:** (label with a dashed line separator)
- Start:** 18, 1.00
- End:** 18, 1.00
- Buttons:** cd, Reset, Restore
- Buttons:** >> Save >>, Cancel



## Camera Calibration

For each specific camera and lens

- Based on an HDR image
- Based on one Raw image file
- Based on measuring lux level on A4 white paper (???)



Mult. Factor Panel

Camera: Canon\_EOS\_60D

Lens: Sigma

F Number: 8.0

Iso: 100.0

Shutter Speed: 0.0051

Exposure Value: 13.62

Mult. Factor: -----

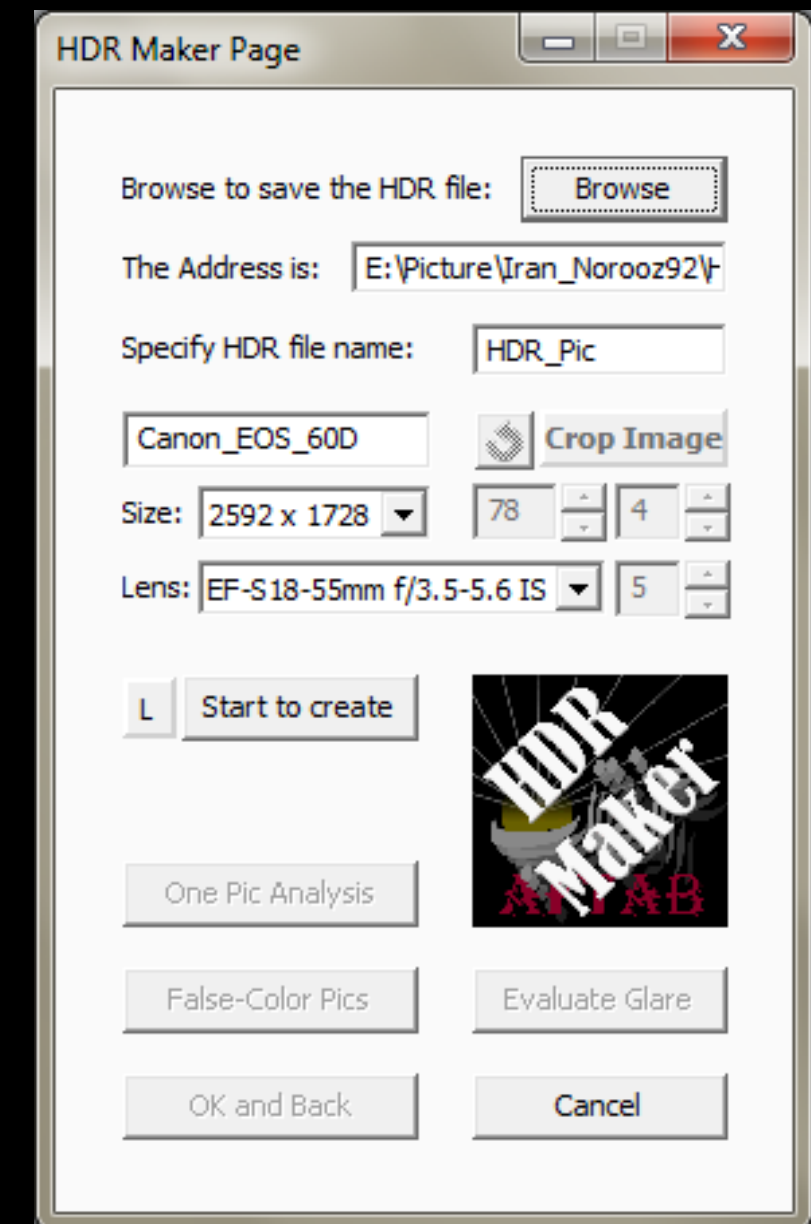
Start\_End: 12 1.06007067138

>> Save >> Cancel

## HDR Creation

Based on a sequence of RAW files (CR2, NEF, DNG, RAW) or JPEG files with different shutter speeds (no image alignment).

- Define output image size
- Select the Lens that is already calibrated
- In case of using an fish-eye lens, there is an option to crop the image.
- There are two different HDR assembly algorithms, (L and S)  
(L gives a more accurate brightness value)





# Aftab Alpha, new HDR software

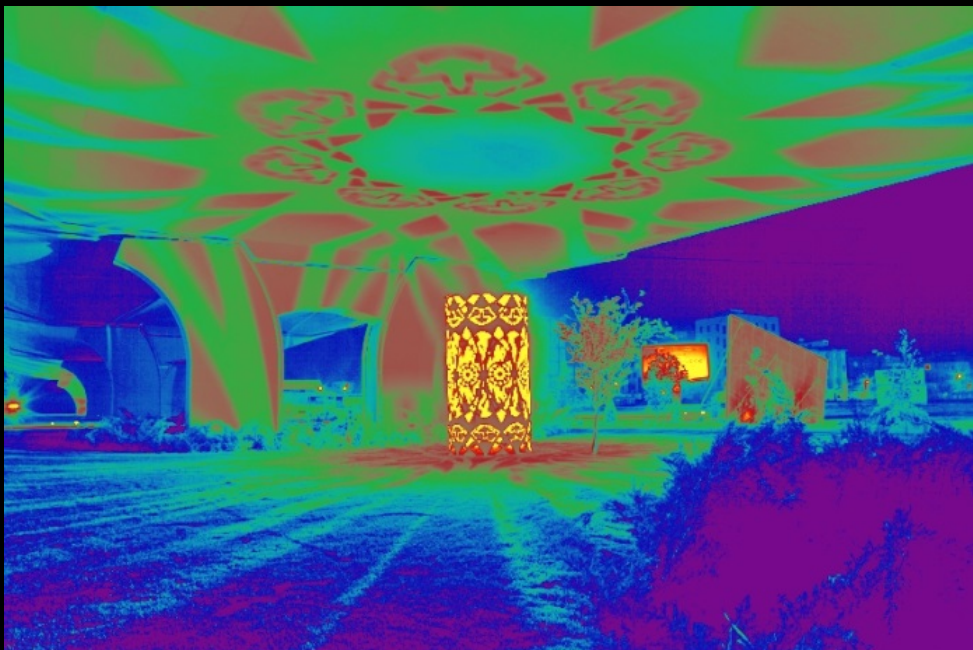
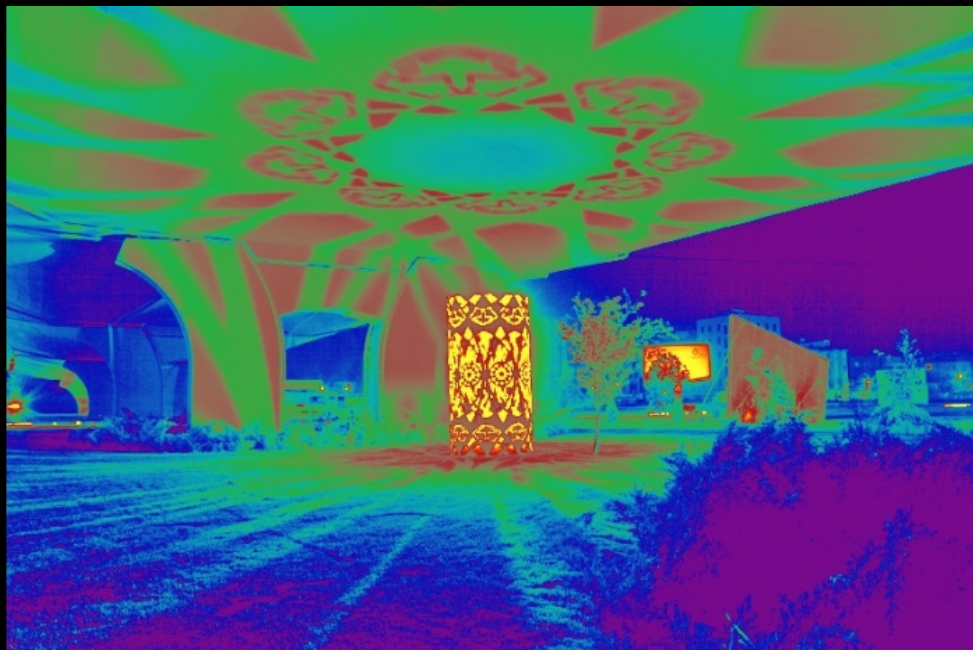
## HDR Creation

6 RAW files taken by Canon EOS 60D

Windows 7 64 bit, 2.66 GHz Intel  
Core i7, 2 GB RAM

Windows 7 64 bit, 2.66 GHz Intel  
Core i7, 2 GB RAM

Mac OS X, 2.66 GHz Intel  
Core i7, 8 GB RAM



By Aftab, L option  
Execution time: 31s

By Aftab, S option  
Execution time: 132s

By RAW2HDR  
Execution time: 10s



## HDR Evaluation and Falsecolor

Input file types: HDR, PIC, DAT\*

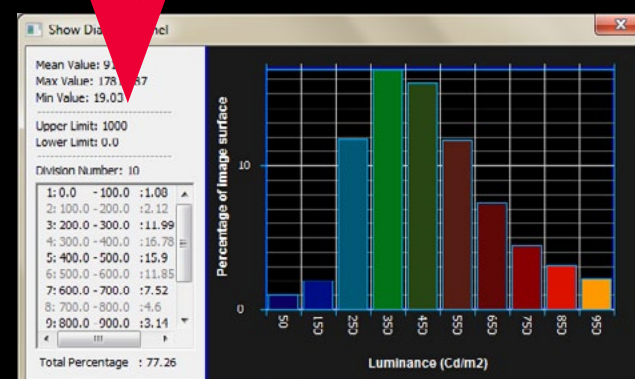
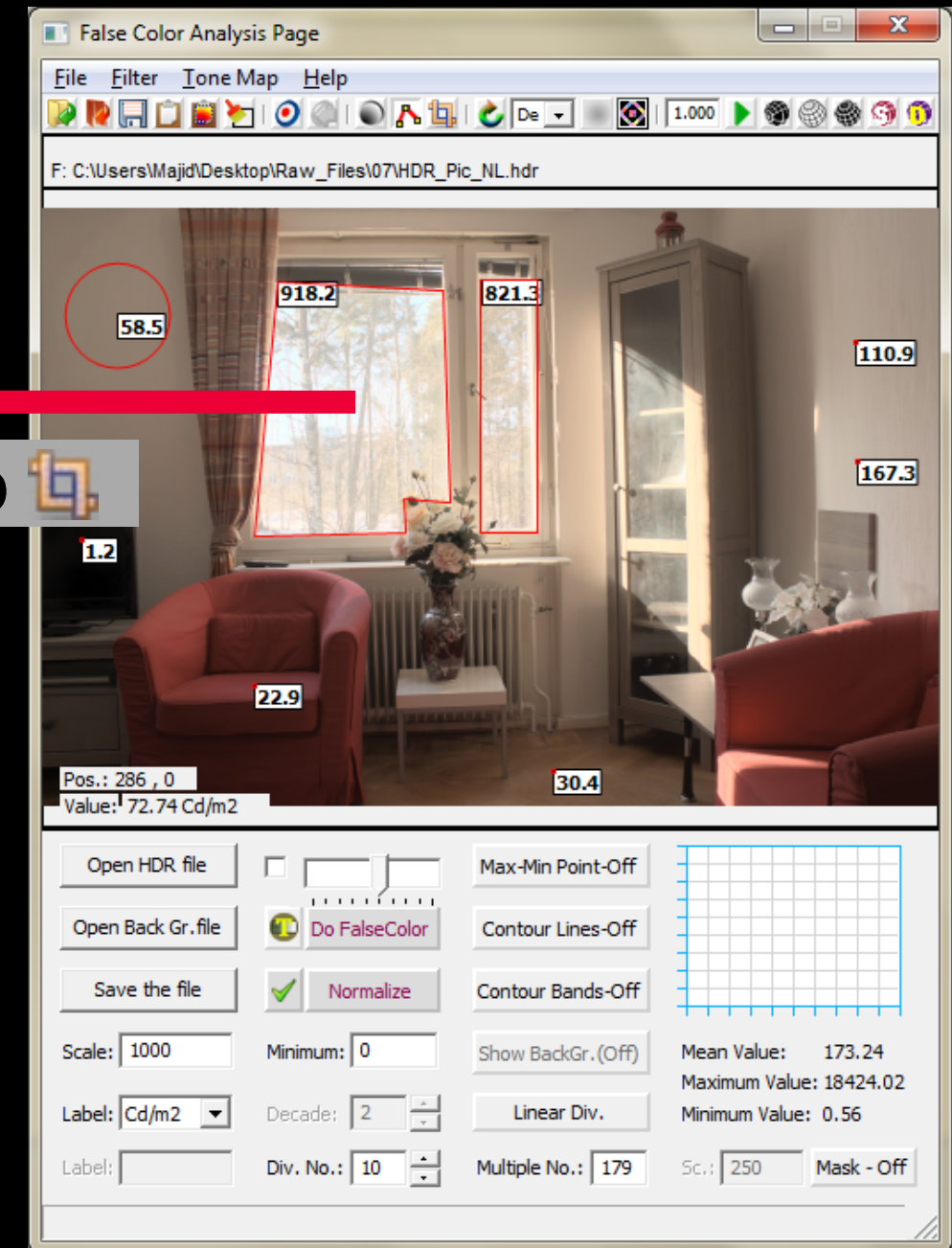
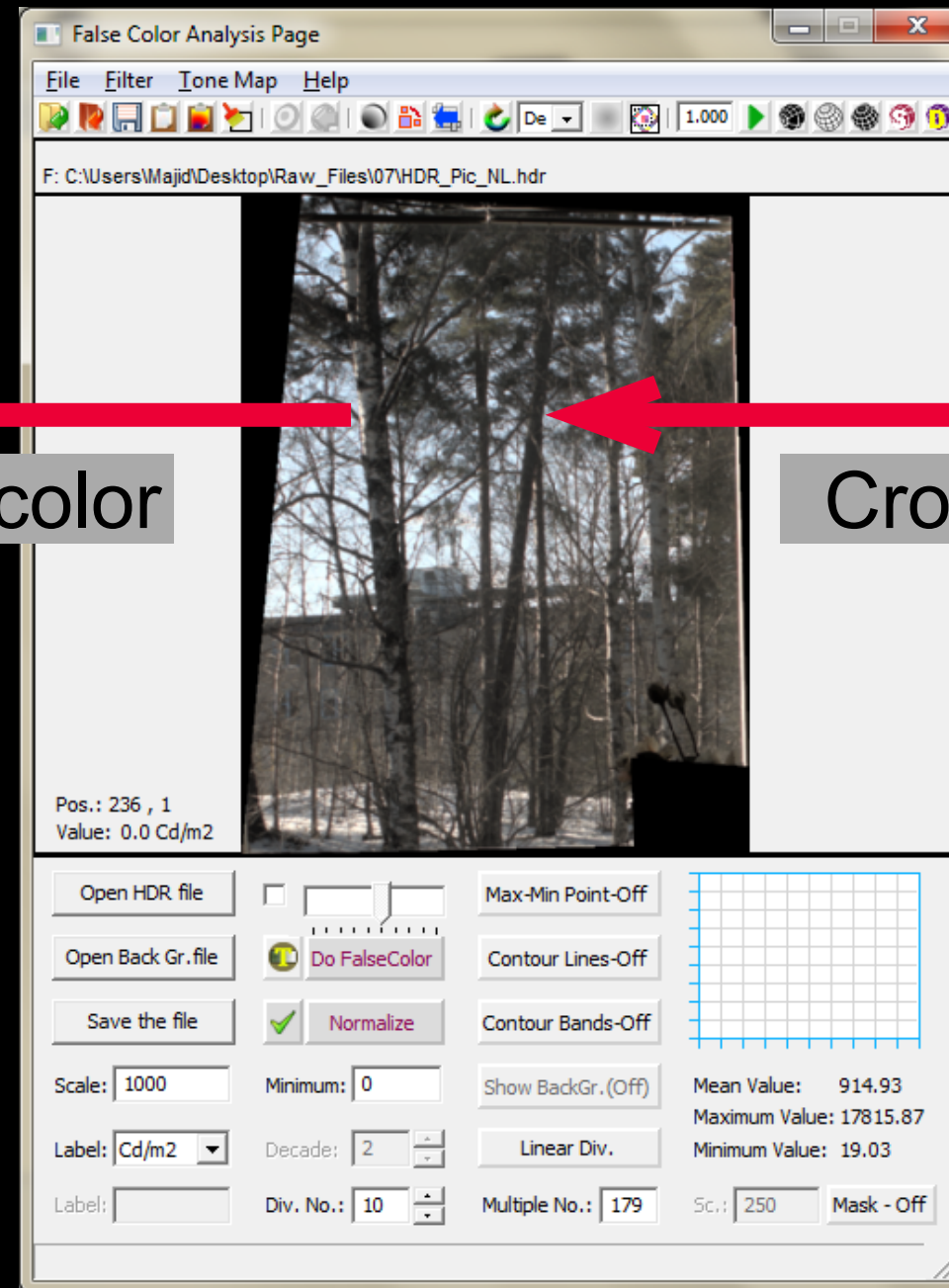
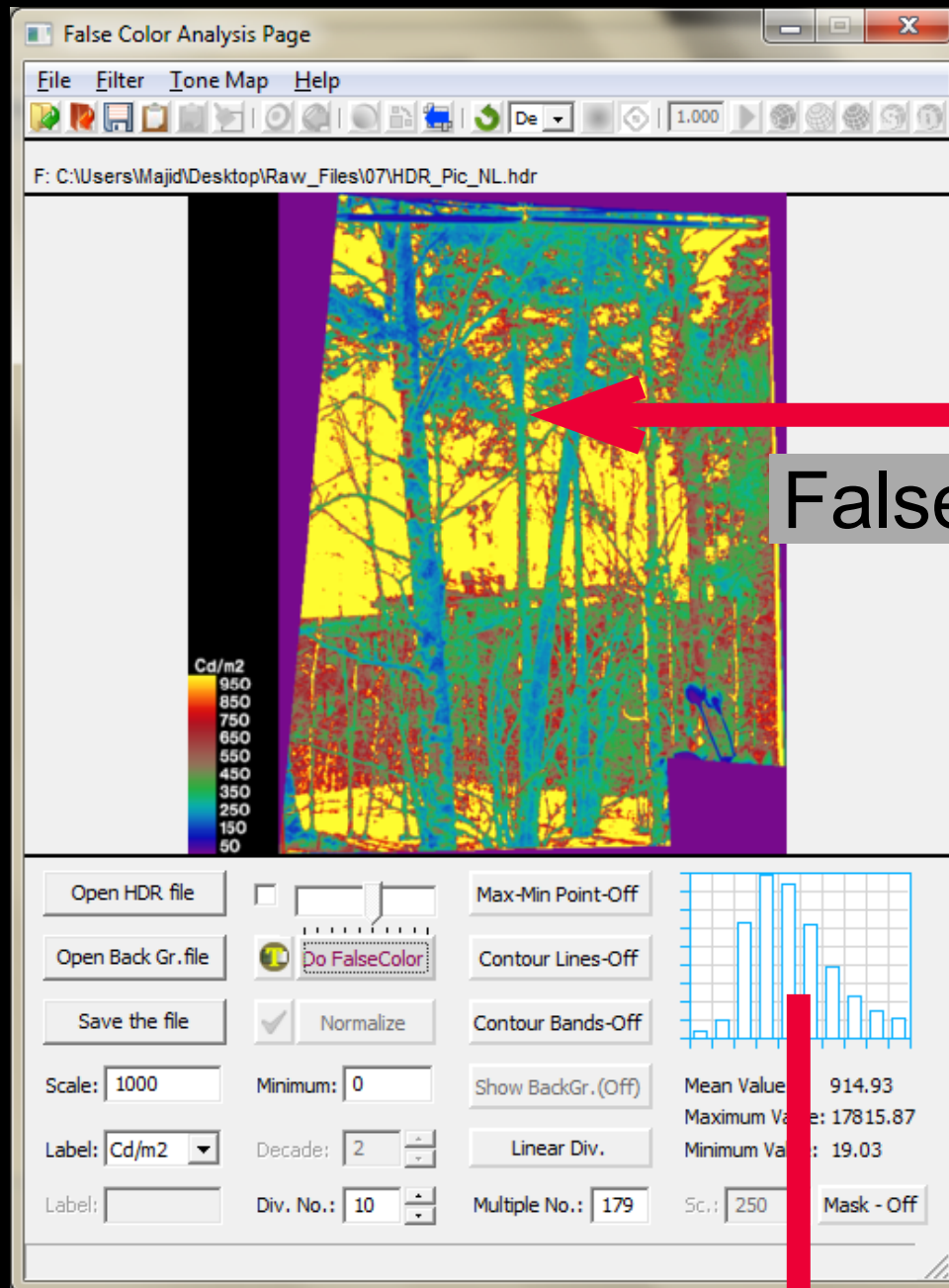
\*DAT: Radiance points data files

- FalseColor images with 7 different palettes.
- Reading pixel RGB and brightness values.
- Reading brightness values of a selected circular, rectangular and polygonal area
- Cropping the image.
- Showing the image brightness histogram.
- Color-Balance the image available in lamp.tab and also customized X,Y and M values.
- Correlated color temperature conversion.  
(???)
- Simple tone-mapping





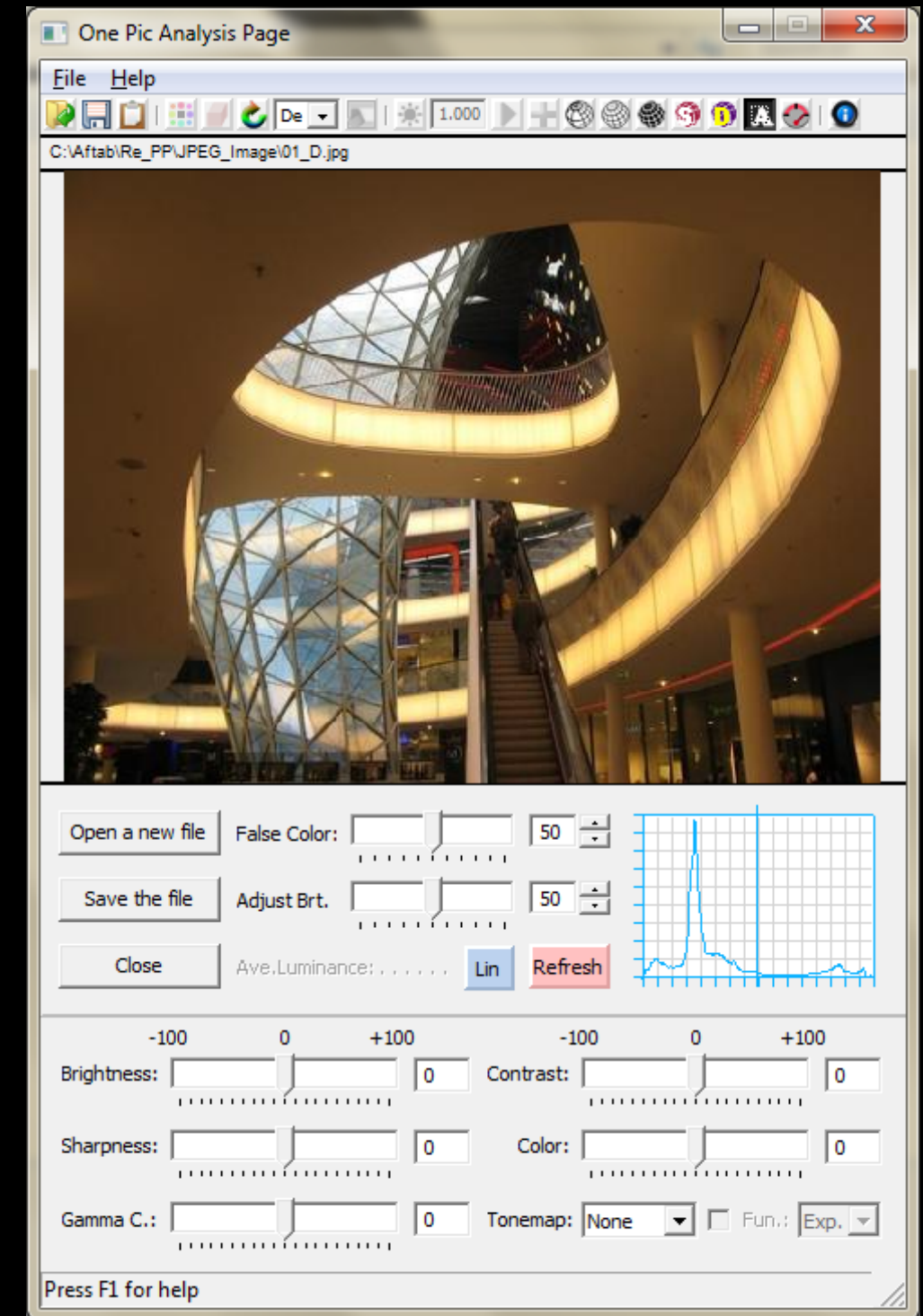
## HDR Evaluation and Falsecolor



## One-Pic Analysis

Input file types: JPEG, BMP, GIF, TIF, PNG, DNG, CR2, NEF, CRW, HDR, PIC

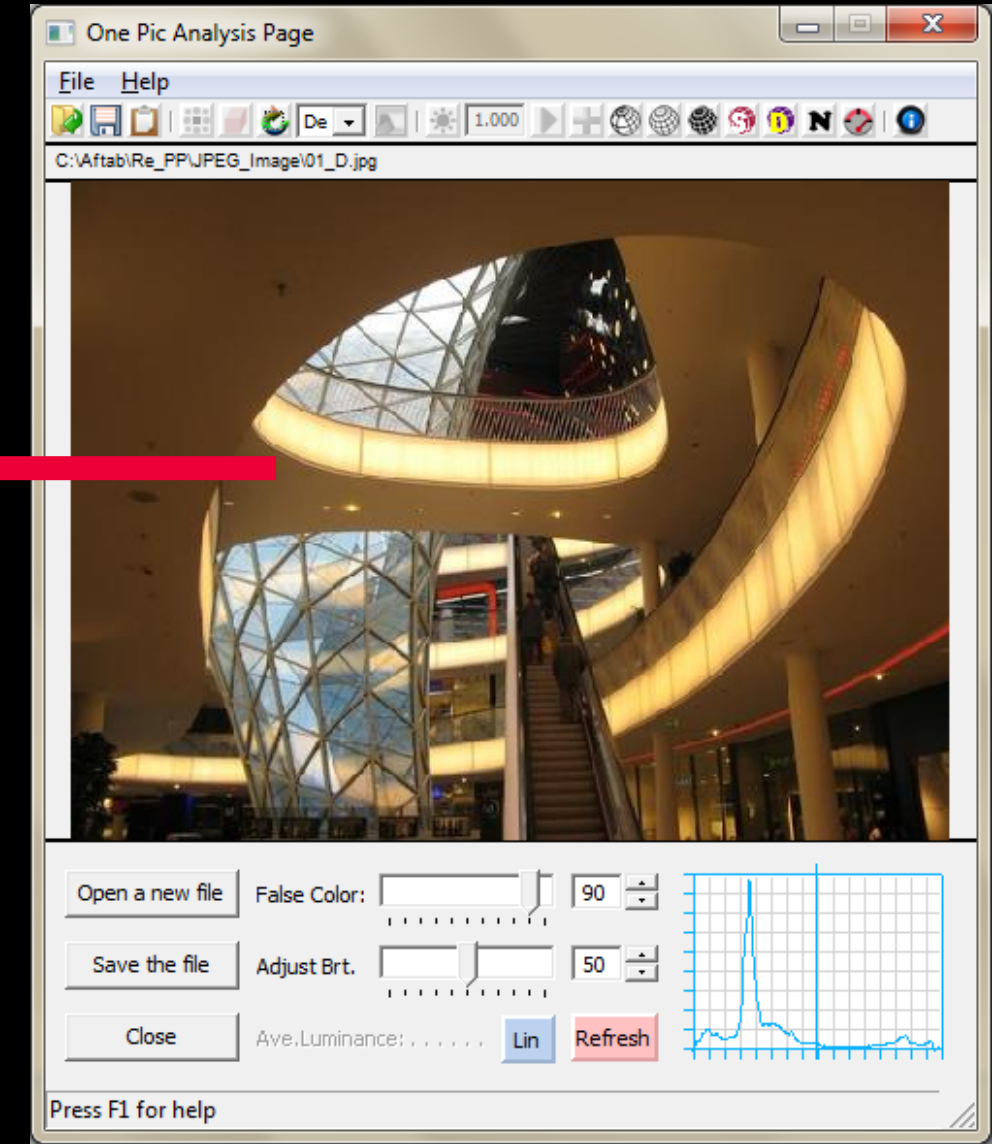
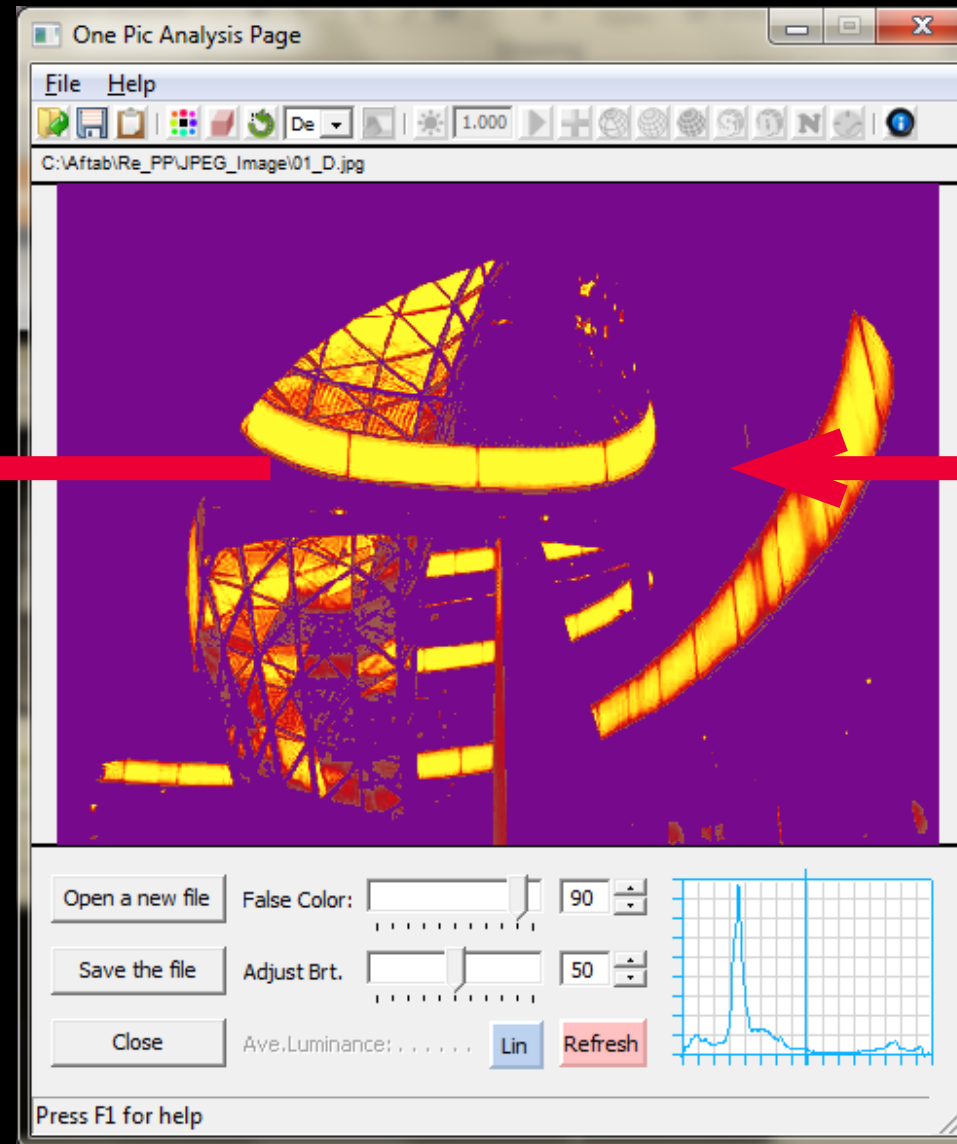
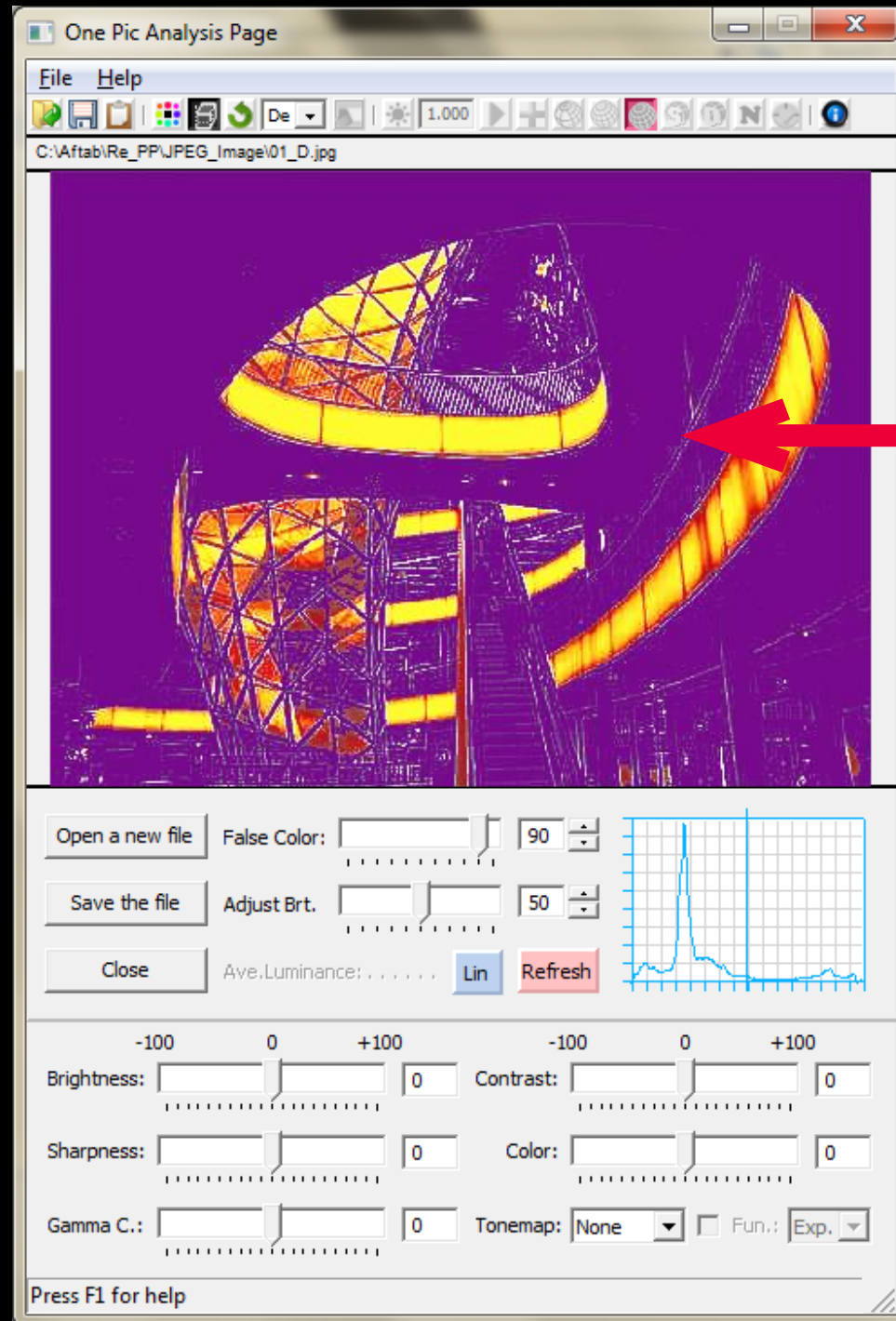
- FalseColor images with the possibility to limit the range of brightness levels (just for visual analysis)
- Falsecolor images with 7 different palettes.
- Showing the image histogram.
- Simple tone-mapping



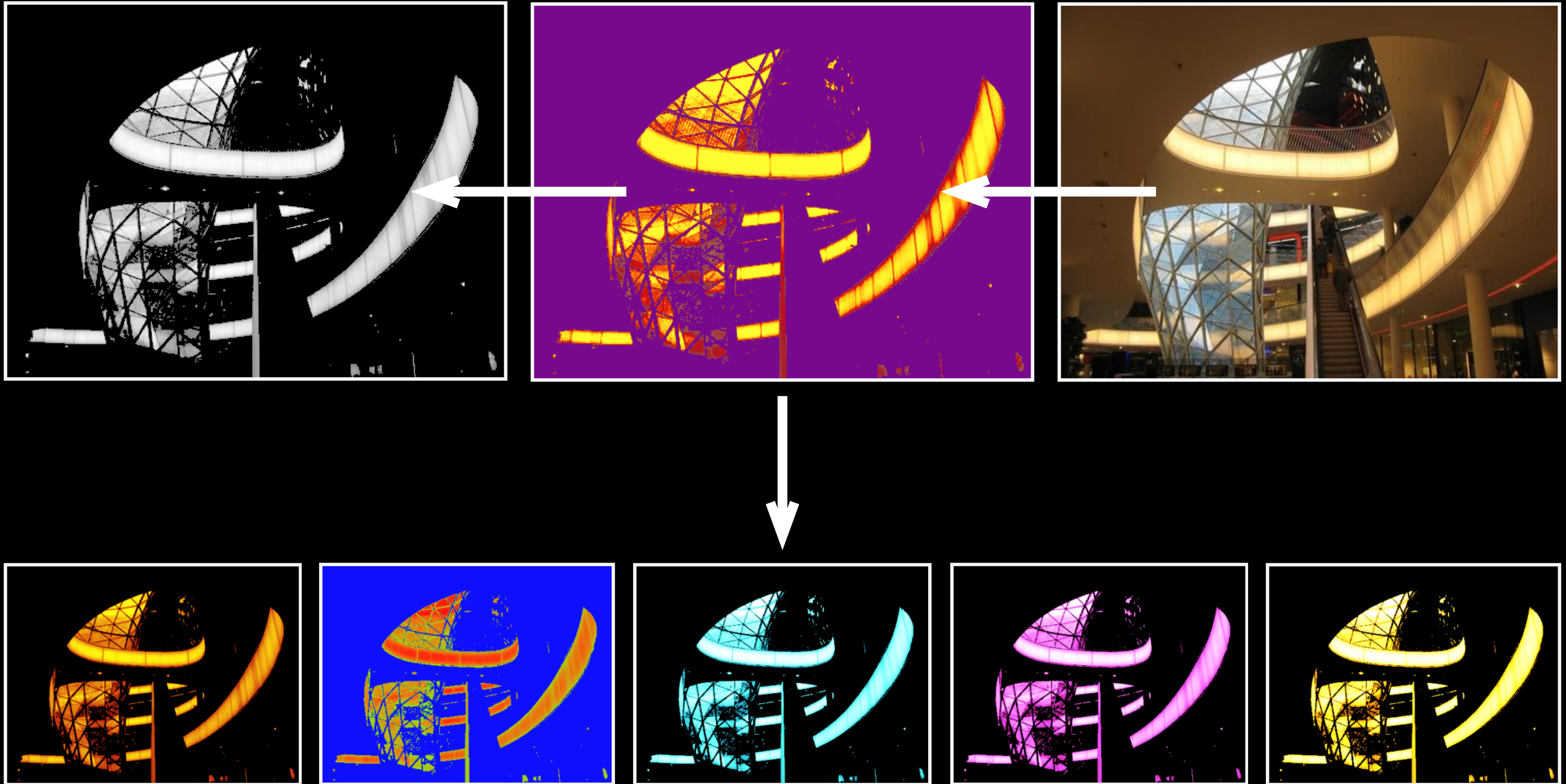


# Aftab Alpha, new HDR software

## One-Pic Analysis

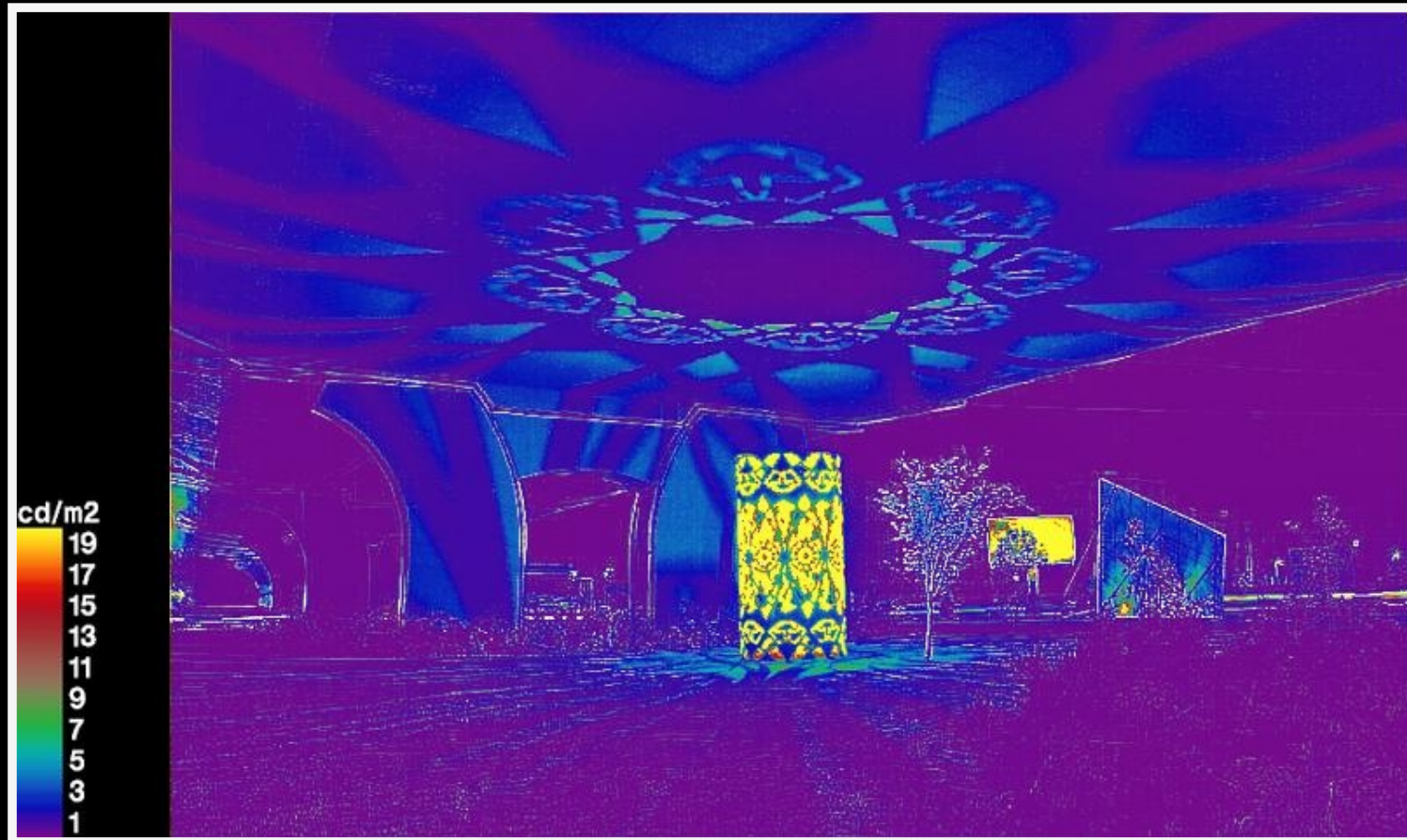


## One-Pic Analysis

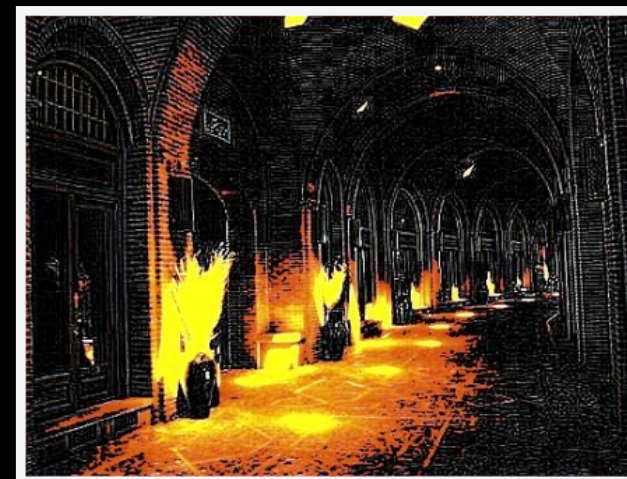
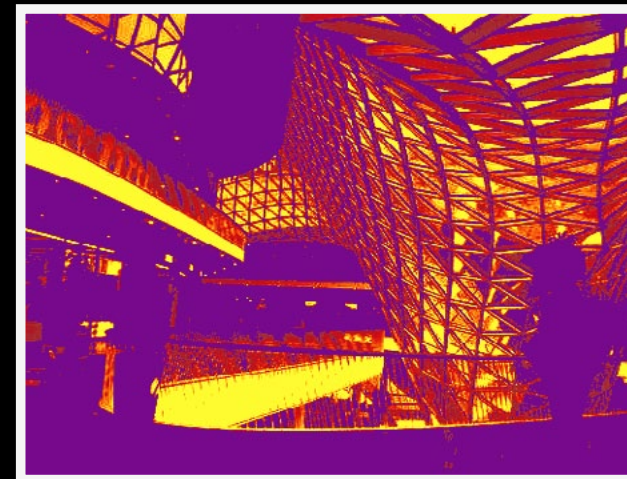
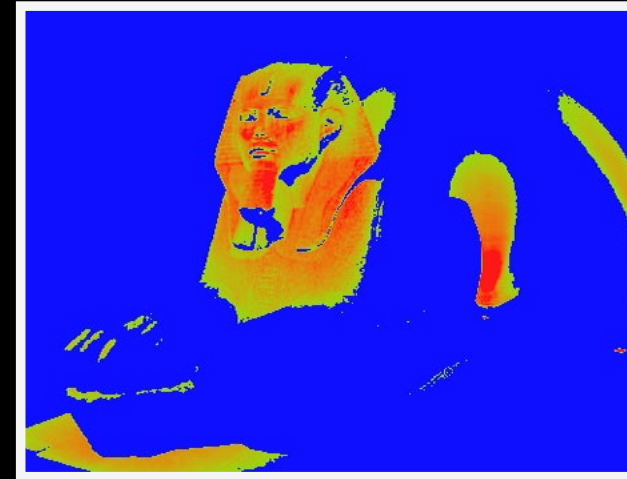




## One-Pic Analysis



HDR image -> FalseColor + Wire-Frame



JPEG image -> FalseColor

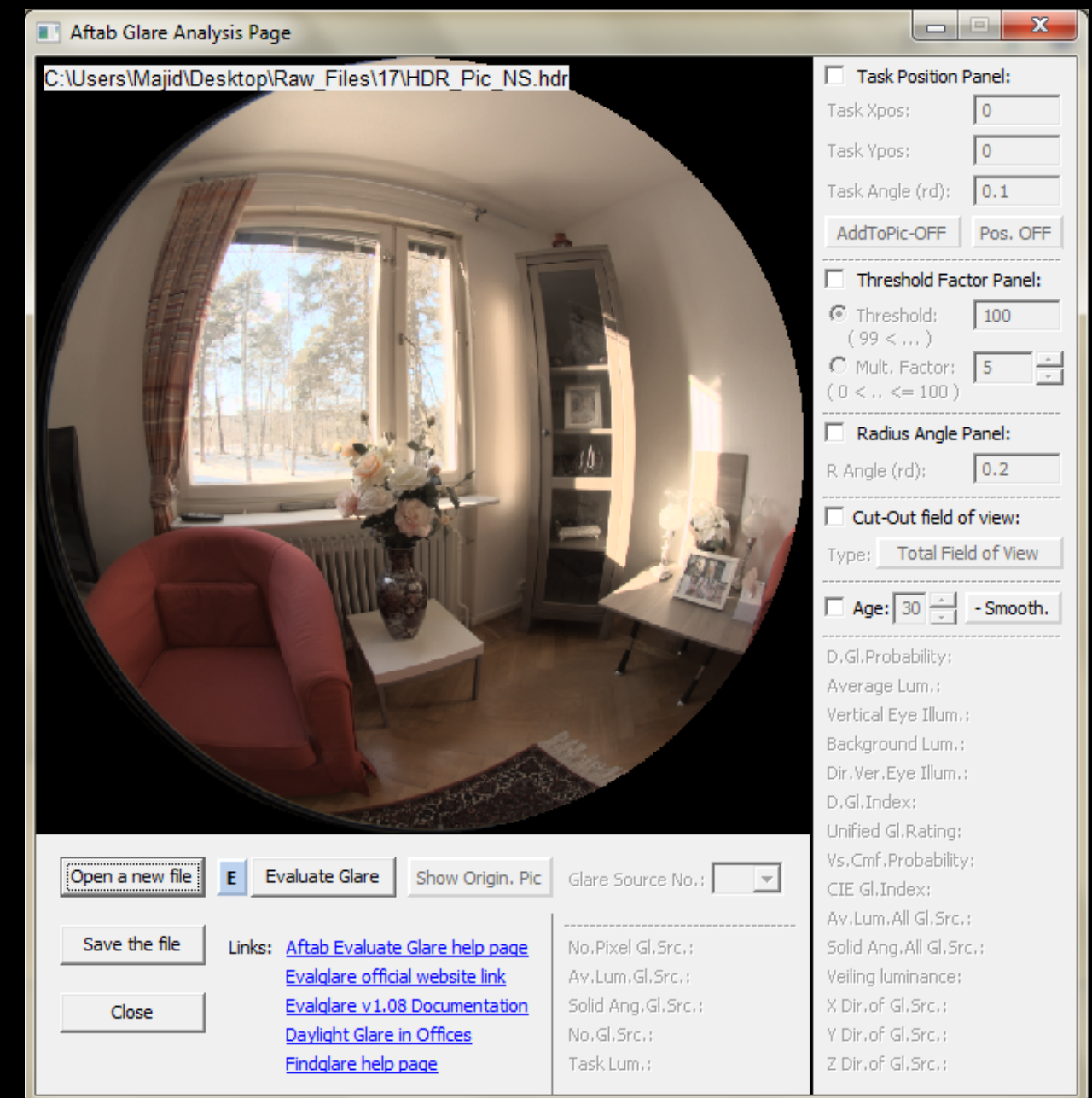
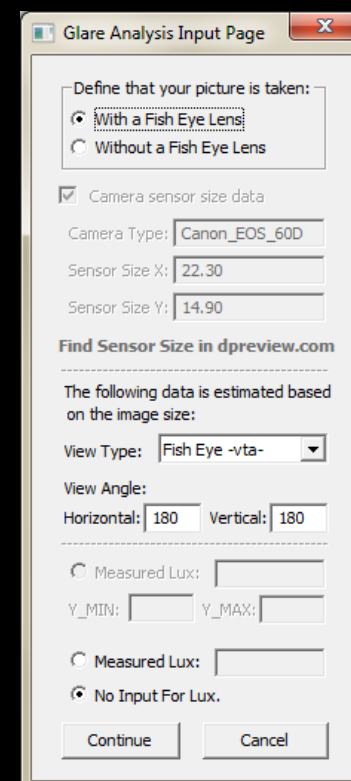


## Glare Evaluation

Input file types: HDR, PIC (created in Radiance or generated in Aftab-Alpha)

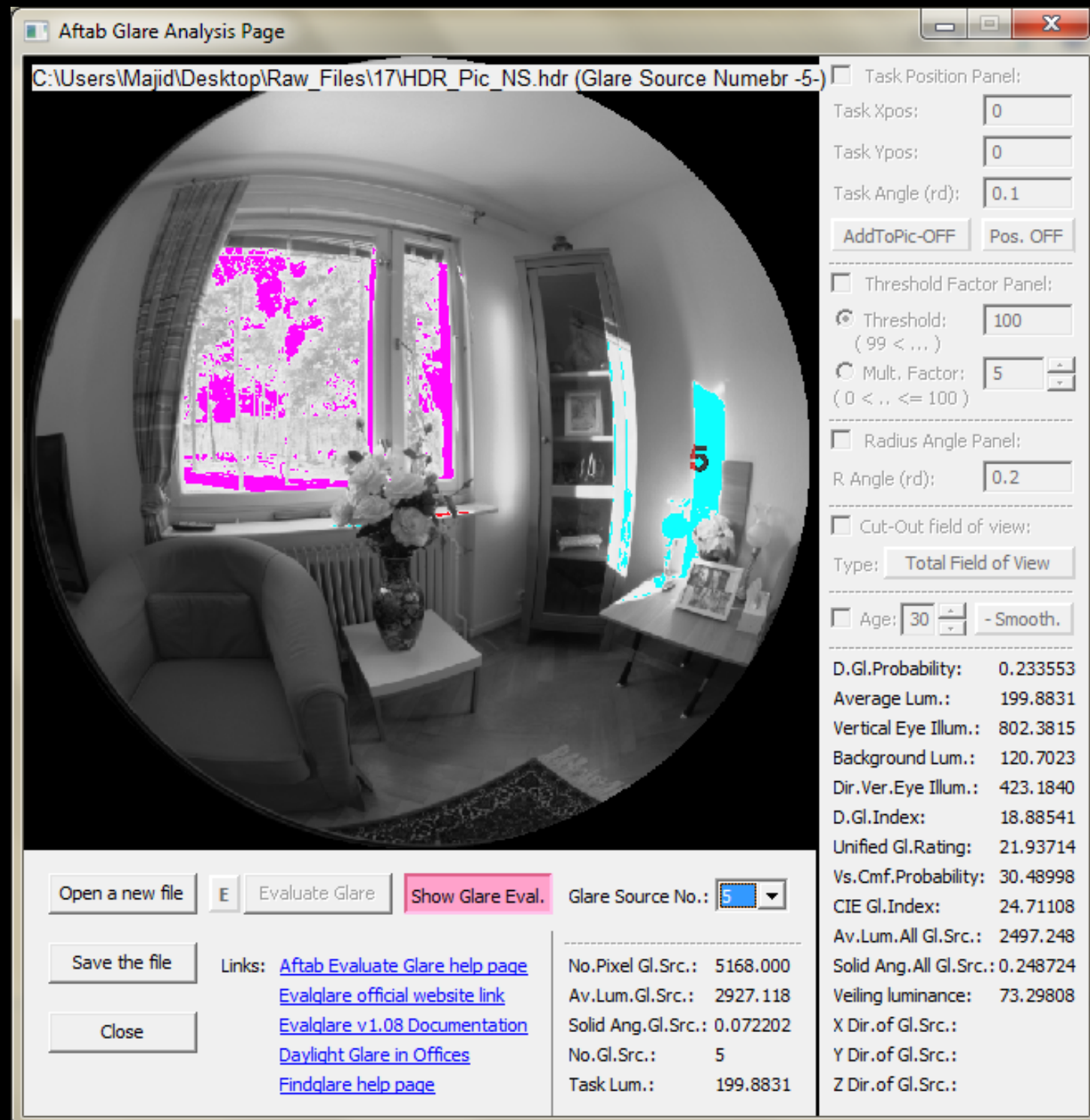
Glare analysis with

- evalglare
- or
- findglare

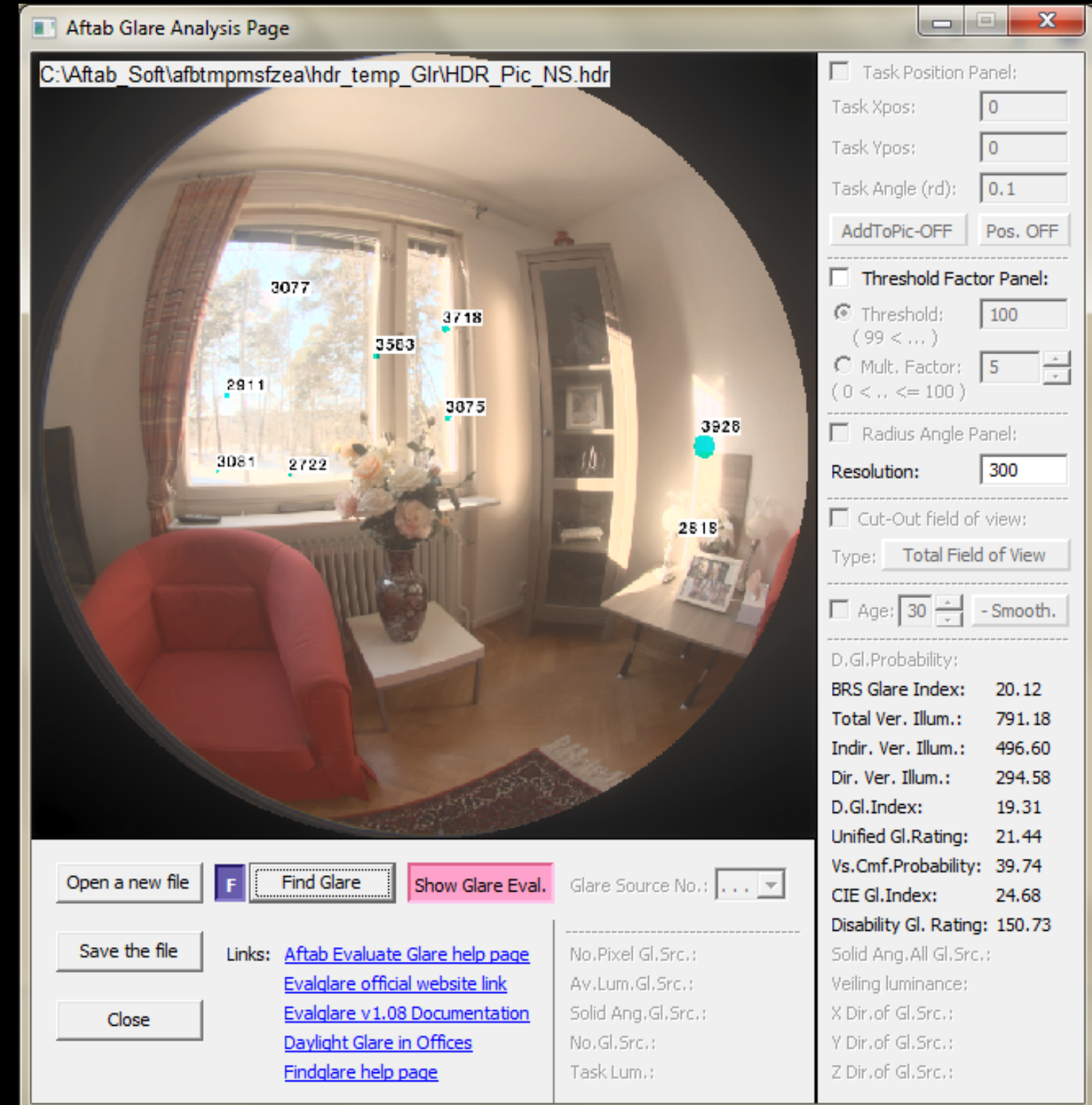




## Glare Evaluation



With evalglare

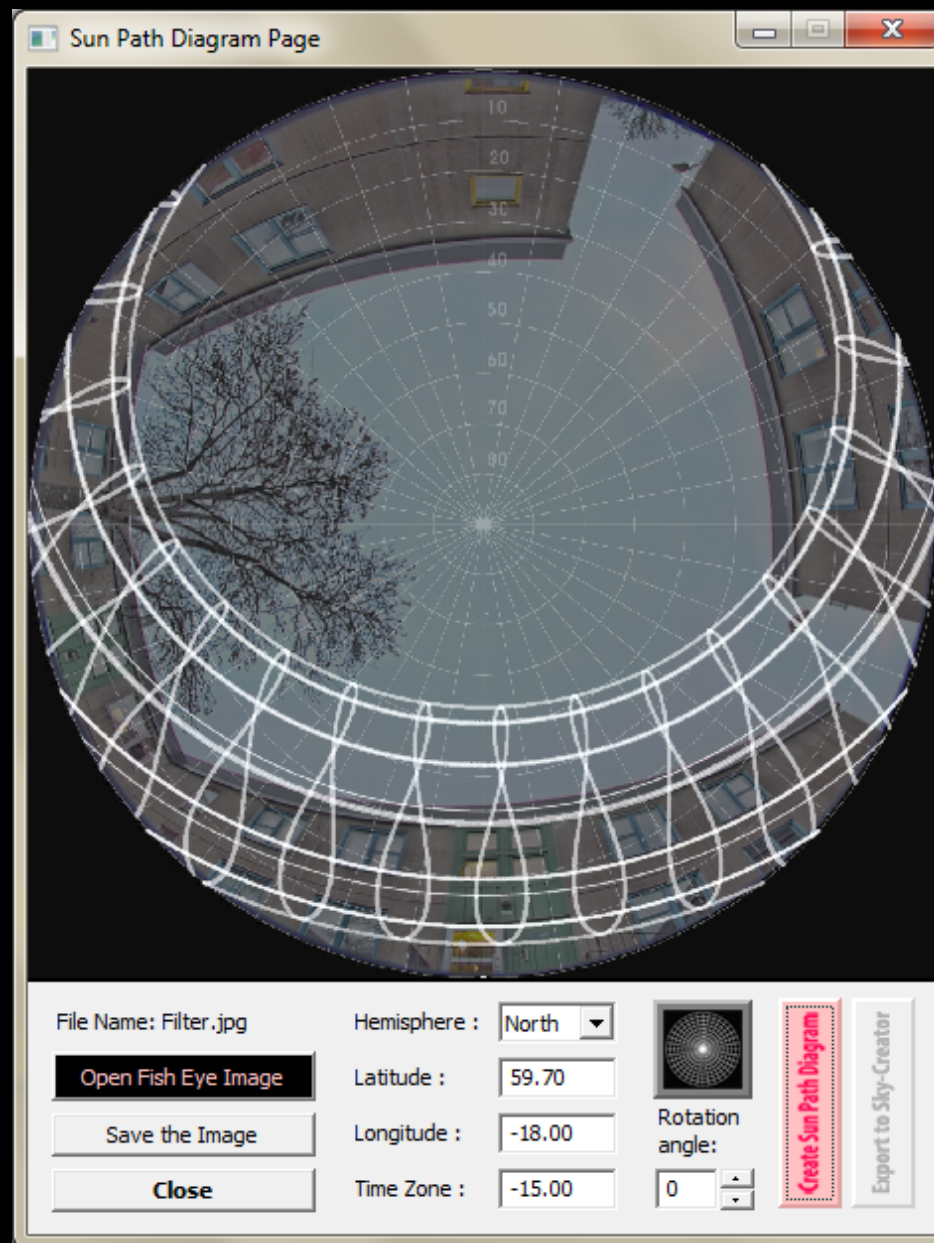


With findglare



## Sun-Path Diagram

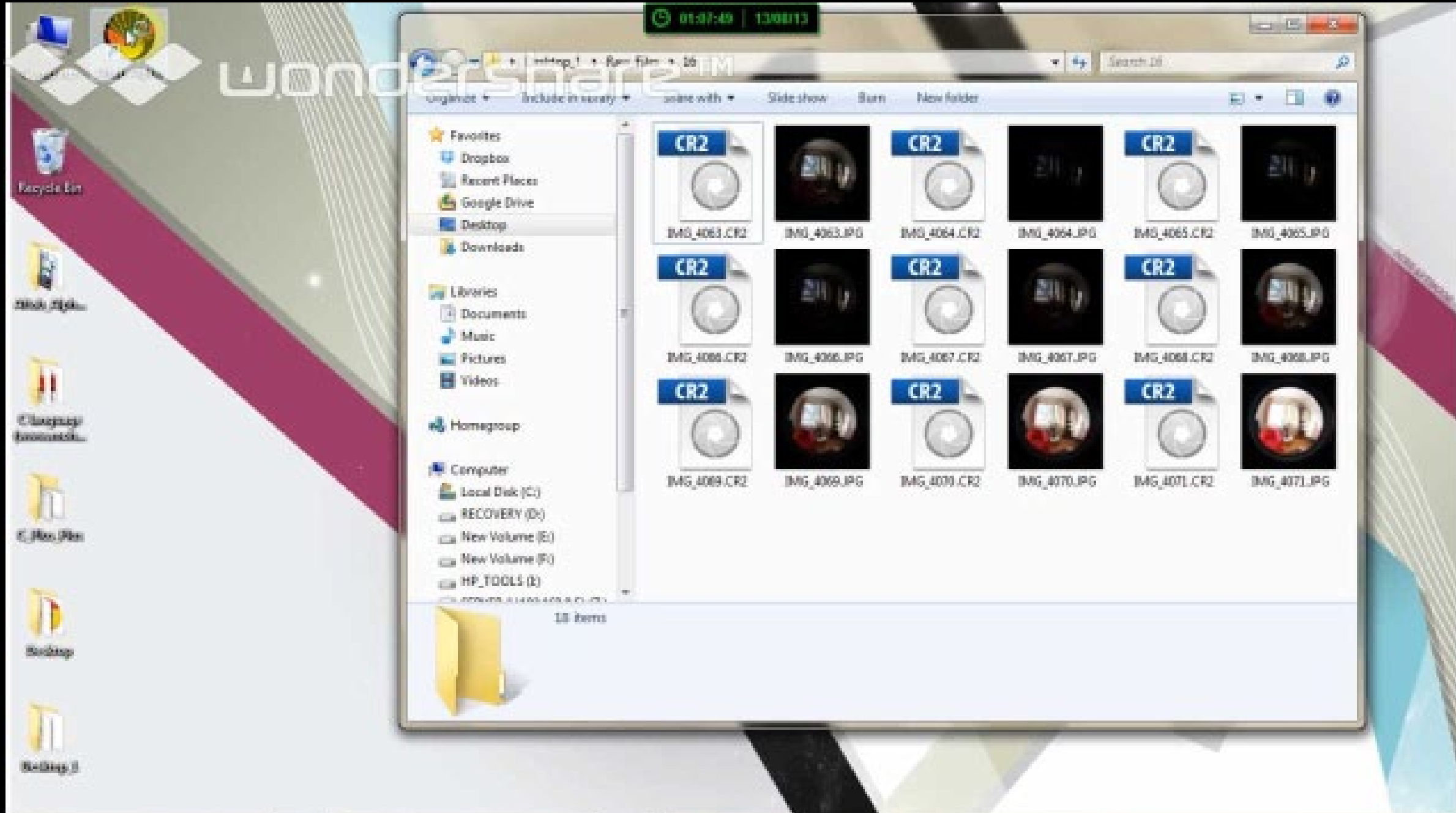
Input file types: HDR, PIC, JPEG, BMP, GIF, TIF, PNG





# Aftab Alpha, new HDR software

# Aftab Alpha introduction video



## Download page

You can download the software for 45 days from this link:

[http://aftabsoft.net/AftabAlpha/Software/Aftab\\_Setup.exe](http://aftabsoft.net/AftabAlpha/Software/Aftab_Setup.exe)

If you fill the registration form from the below link and send it to [info@aftabsoft.net](mailto:info@aftabsoft.net) you can download and use it for free for one year.

<http://aftabsoft.net/AftabAlpha/regform.pdf>

For finding some tutorial movies please check the following link:

<http://aftabsoft.net/aftabalpha.htm>

I really appreciate if you can send your comments, critics or recommendations to [info@aftabsoft.net](mailto:info@aftabsoft.net)







# Aftab Alpha, new HDR software





Thank you  
Tack så mycket  
سپاسگذارم

