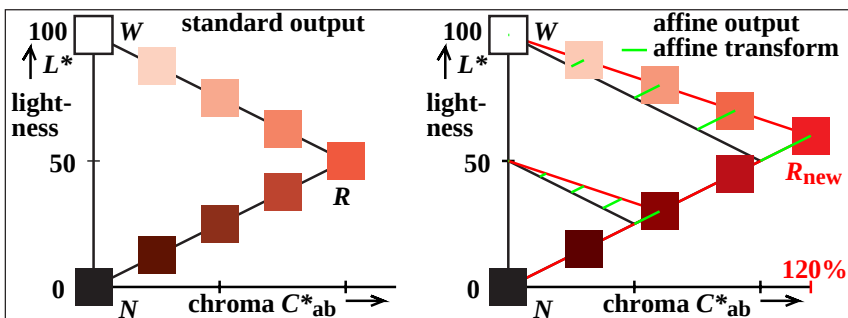




Assumption: Display of $142+64 \text{ cd/m}^2$ (=+44% compared to office standard)

rgb input data for Red and no internal display change l^* : $1,0 \ 0,0 \ 0,0 \rightarrow 1,0 \ 0,0 \ 0,0$

rgb input data for D65 and internal 20%-change of l^* : $1,0 \ 1,0 \ 1,0 \rightarrow 0,8 \ 0,8 \ 0,8$

See example simulation files with 0, 5, 10, ..., 35% change on pages 1, 3,...,15

grey frame: <http://130.149.60.45/~farbmetrik/LE53/LE53L0NP.PDF>

Compare for example samples 01b (White) and 01j (Orange red) on different pages

Result if on page 5 sample 01b appears still White:

Lightness L^* and chroma C^*_{ab} of Red is 20% higher for the affine display output!
Similar effect for Green and displays with LED (3-band) backlight!

Problem in image technology: How to specify the affine output by a CRI?

Visual evaluation prefers the more chromatic affine output!

A fidelity metric gives low CRI's, similar in lighting for LED (3-band) output