

CIELAB measurement of output colours on an LCD display

At work places the ambient room light produces reflections on any display. Figure AEA01-3N shows 2,5% reflection compared to White W (100%). Figure AEA01-4N shows 20% reflection compared to White W (100%).

Result

The scaling of the grey scale remains not approximately equally spaced. In Figure AEA01-4N may dark grey steps can not be distinguished.

Requirement

Apply display-output linearization to get the output equally spaced.

Scientific result

In many cases a reduction of the display *gamma* helps.

Test and application

ISO 9241-306:2018 defines 15 steps of *gamma* g_p .

In may cases an ISO file shows solutions of the problem, see

<http://standards.iso.org/iso/9241/306/ed-2/AE49/AE49F0P0.PDF>

<http://standards.iso.org/iso/9241/306/ed-2/AE49/AE49F0N0.PDF>

See many other files with output questions in english, french, and german

<http://standards.iso.org/iso/9241/306/ed-2/index.html>