$\label{lem:constraint} \textbf{Proposed CIE output linearization for display and data projector devices}$

Display or data projector company:

realized output options:

One Company preference (Y/N)?
One ISO 9241-306 (CIE?) linearized (Y/N)?
Eigth ISO 9241-306 (CIE?) linearized (Y/N)?
Only one option not specified (Y/N)?

User display or data projector without or with device specific *up to 8 PS linearization codes* in display output software.

User visual test for up to 8 room light reflections with output of ISO 9241-306 test charts.

Agrees the output with the user wishes (Y/N)?

If No (N) agreement to the user wishes then: Output of reference test chart with 1080 colours. Continues colour change in output (Y/N)? If Yes, then linearization possible and decision: Ask display or linearization company for help. Linearization company: <

Measures 1080 colours of display output with no room light reflection and produces —8 PS linarization codes for eight room light reflections.

For test charts of ISO 9241–306 see (1,7 and 20MB) http://www.ps.bam.de/ME15/10L/M15E00FP.PDF http://130.149.60.45/~farbmetrik/OE58/OE58D1PX.PDF

Advantages of Output Linearization:

- Linear relation between rgb and CIELAB data.
- No loss of visual information for 16 step colour series on different devices.
- Linearized output of whole display for ergonomic work depending on room light reflections, for solutions see ISO 9241–306.

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