

Output of 16 step colour scales in the file formats PS and PDF by different computer operating systems on monitors and printers

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Overview

ISO/IEC JTC1/SC28 "Office Systems" has studied the input and output data of ISO/IEC test charts for office devices. ISO/IEC test charts are defined in the format PostScript (PS) and are transformed to Portable Document Format (PDF) using the Acrobat Distiller (Version 3 and 4).

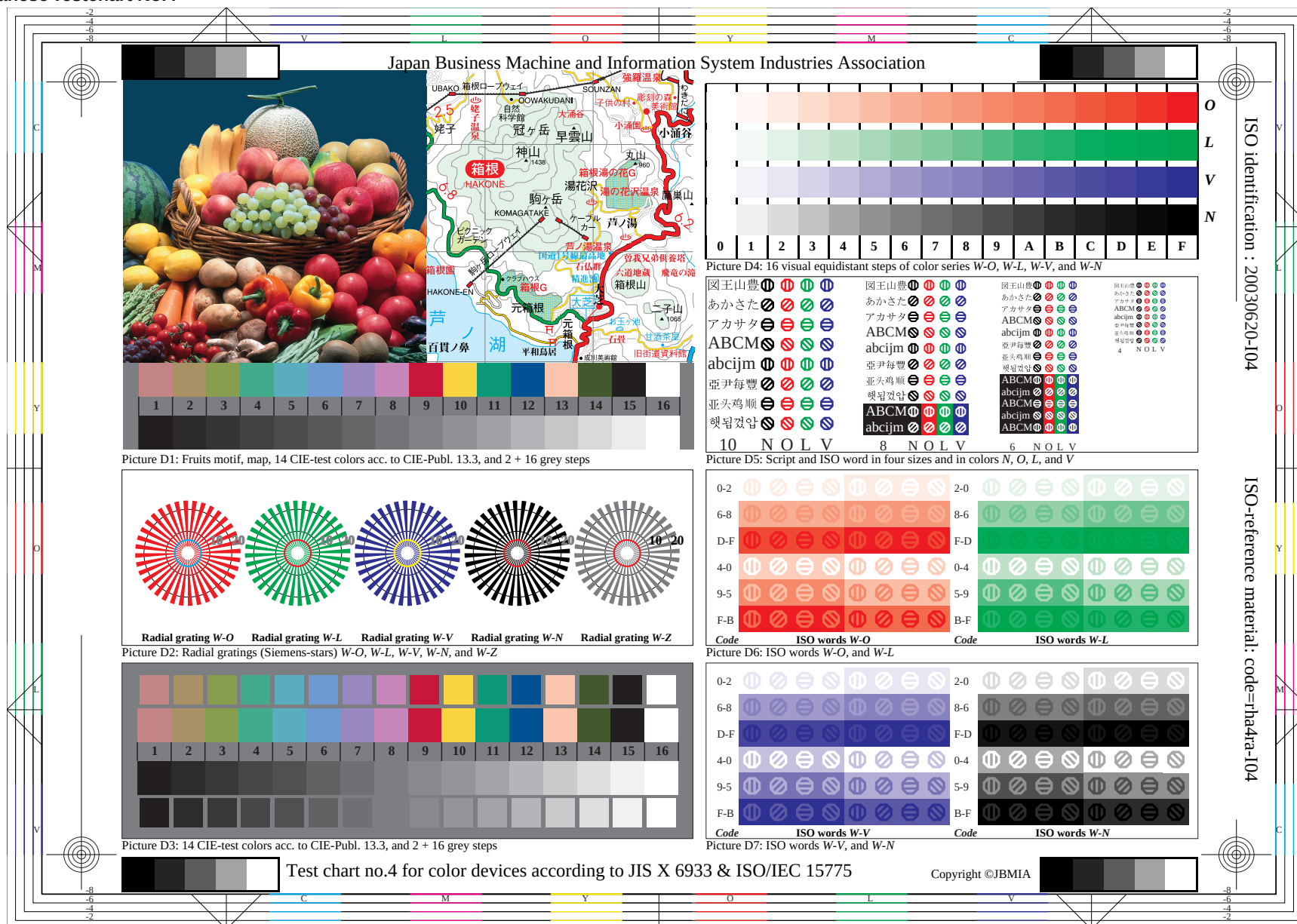
The output of both PS and PDF files depends on the computer operating system, the colour workflow, the monitor and the printers. For PDF files there are large changes between Adobe Acrobat Reader (and Distiller) in versions higher than Acrobat 4. A PDF file which uses four different PS operators and that is intended to define equal 16 step gray scales may produce four different gray scales on both monitor and printer.

Differences in colour appearance using the standard PS operators *setrgbcolor* and *setcmykcolor* are shown at monitor and printer output. For a useful and simple colour management across device limits, the original PS relations, for example cyan = 1 - red, are necessary within application software.

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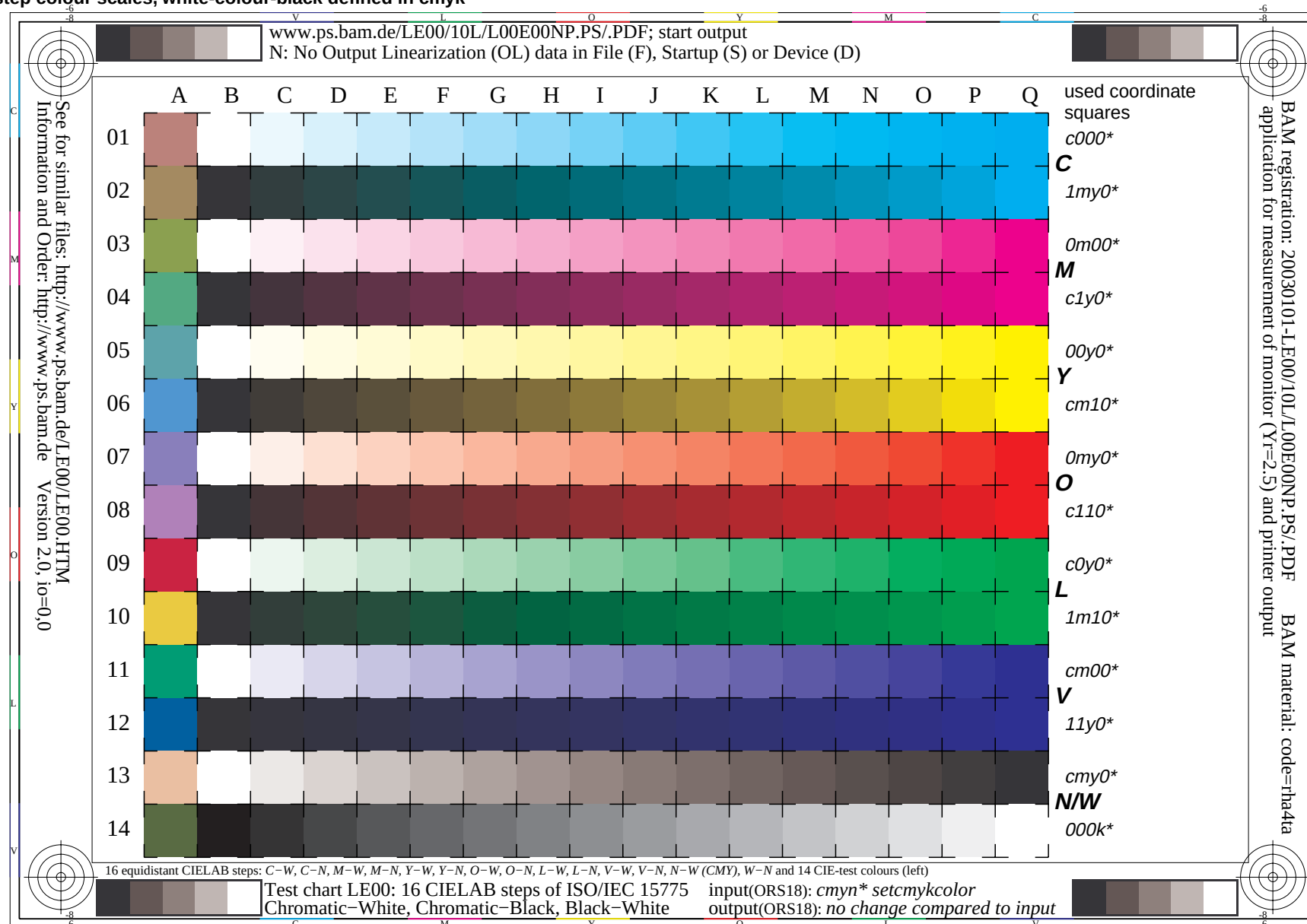
Japanese Testchart No.4



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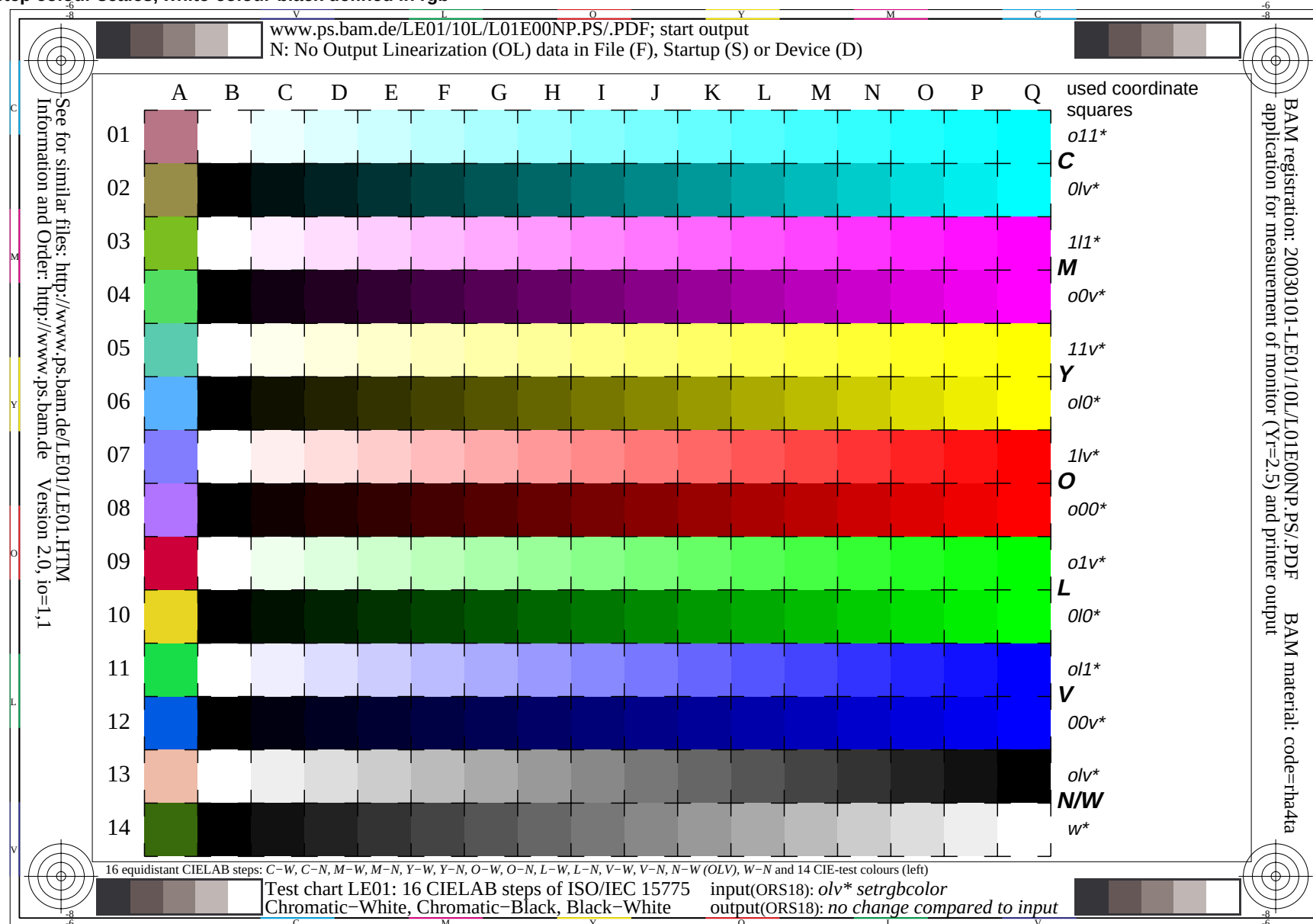
16 step colour scales, white-colour-black defined in cmyk



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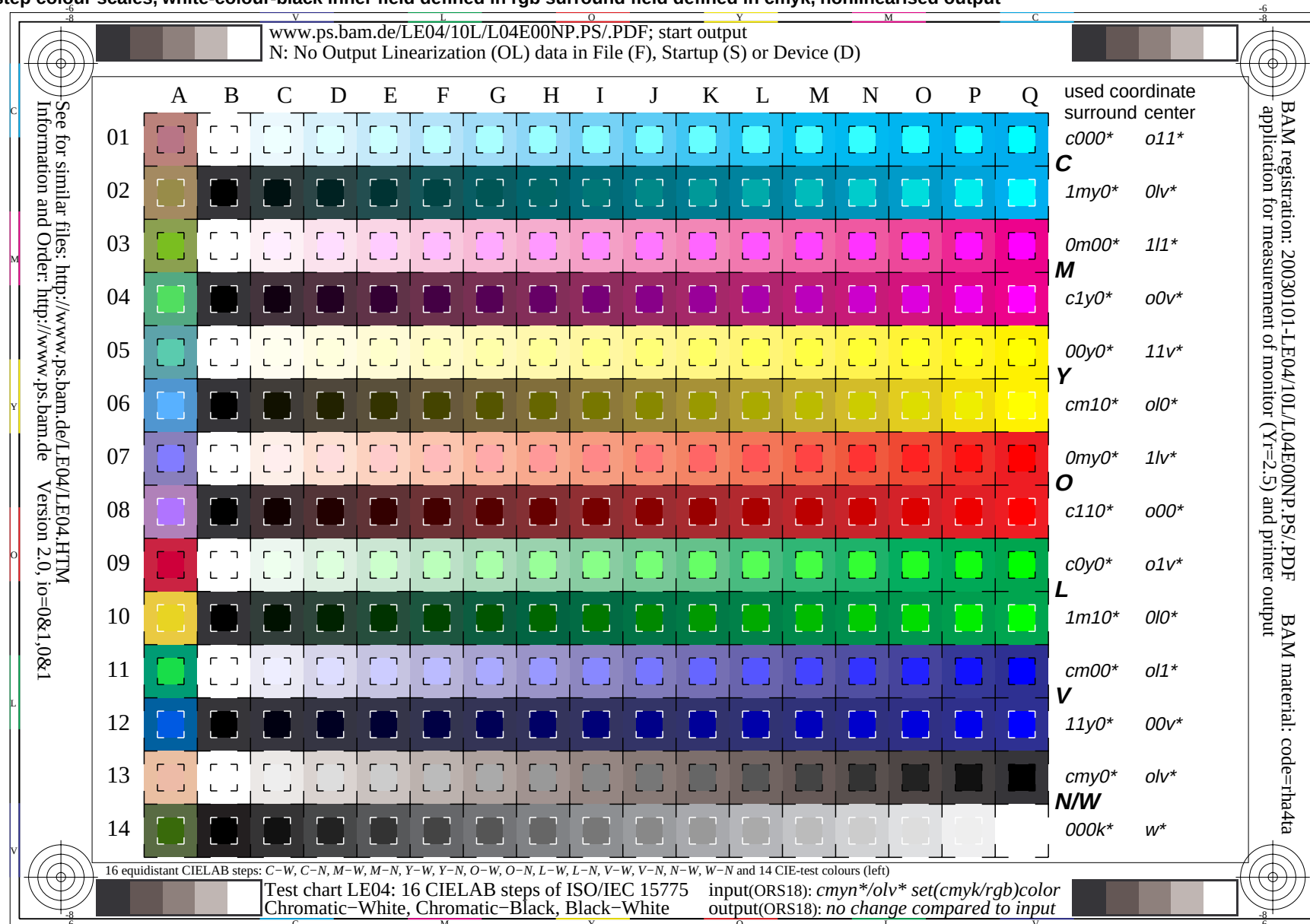
16 step colour scales, white-colour-black defined in rgb



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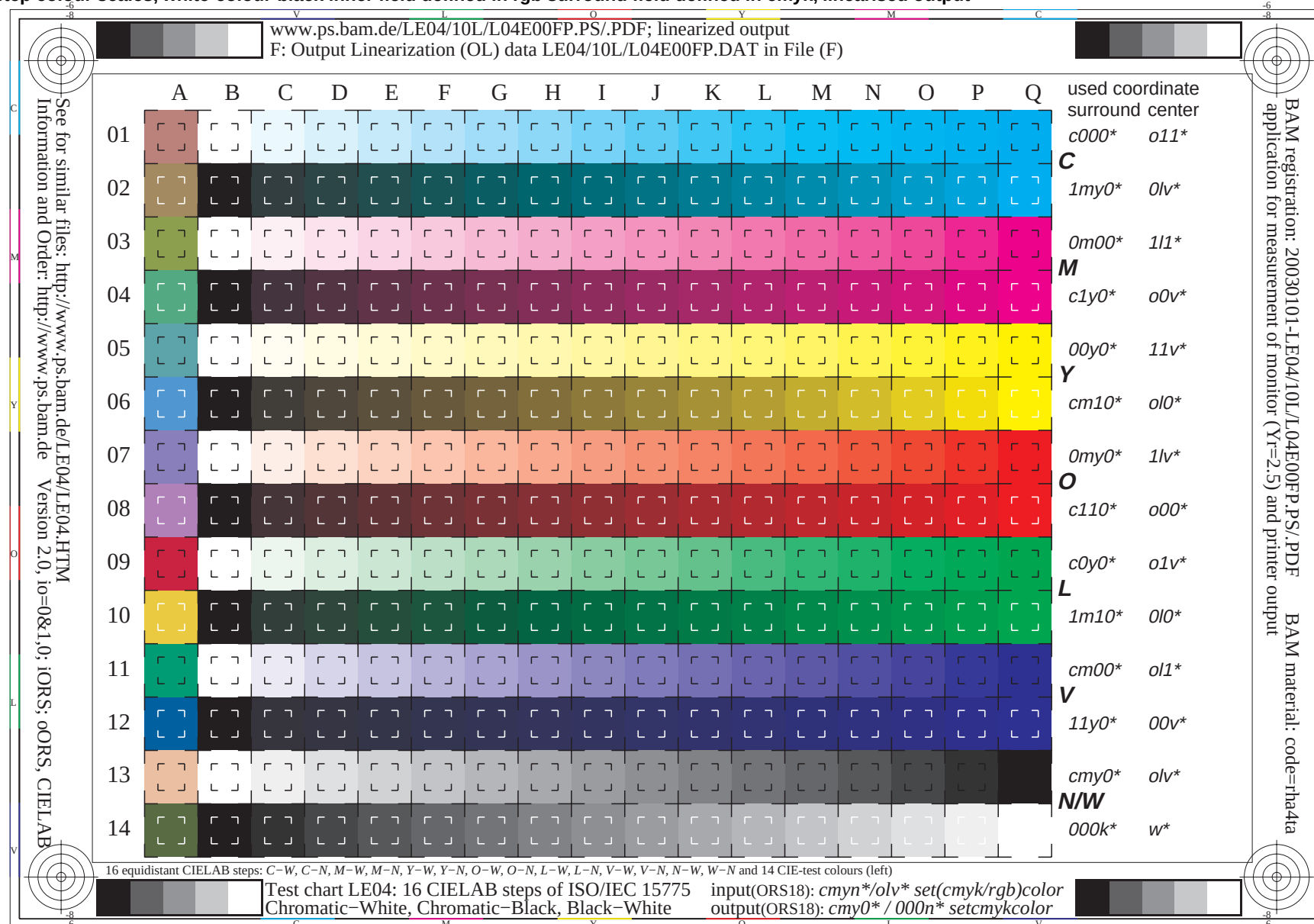
16 step colour scales, white-colour-black inner field defined in rgb surround field defined in cmyk, nonlinearised output



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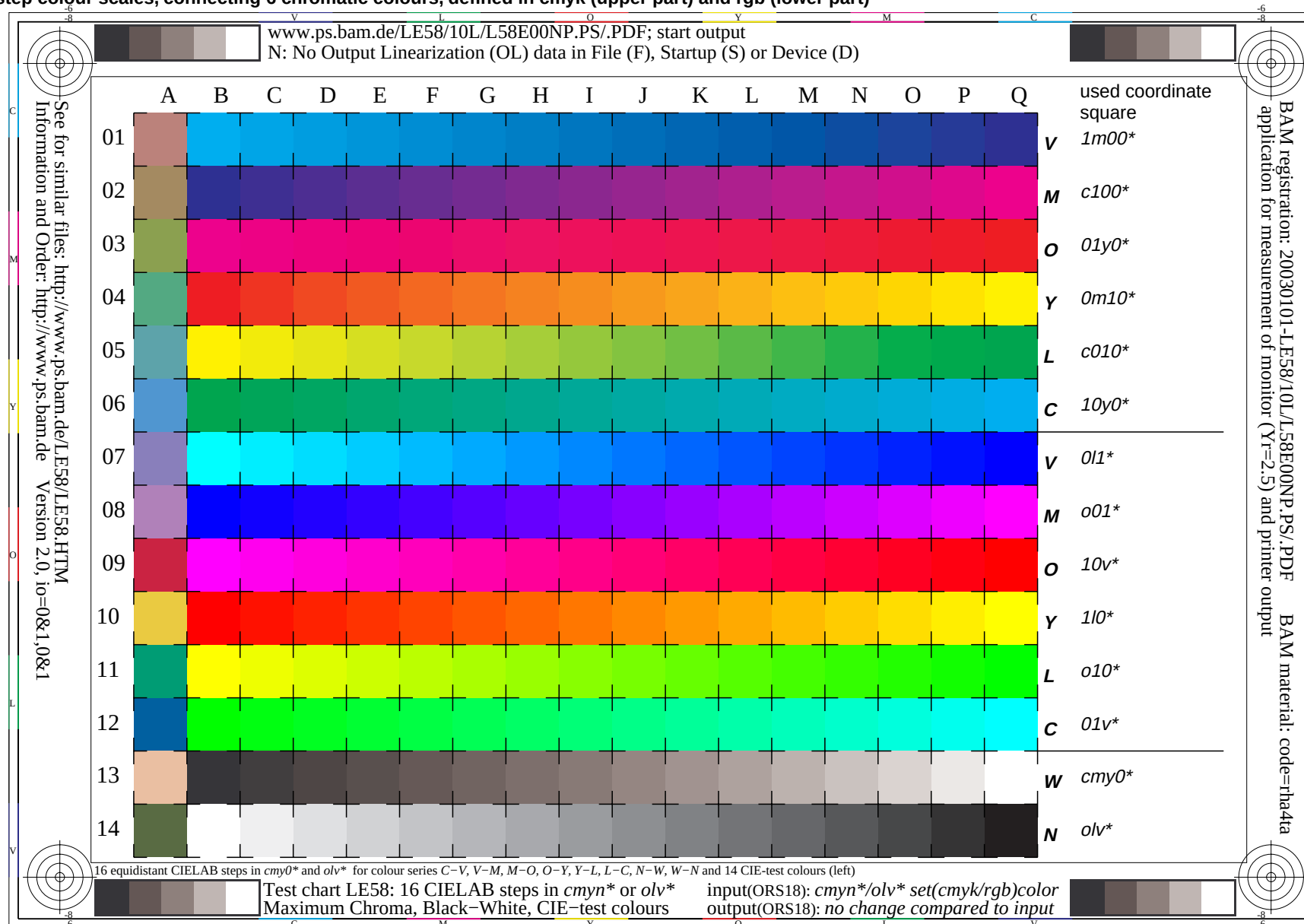
16 step colour scales, white-colour-black inner field defined in rgb surround field defined in cmyk, linearised output



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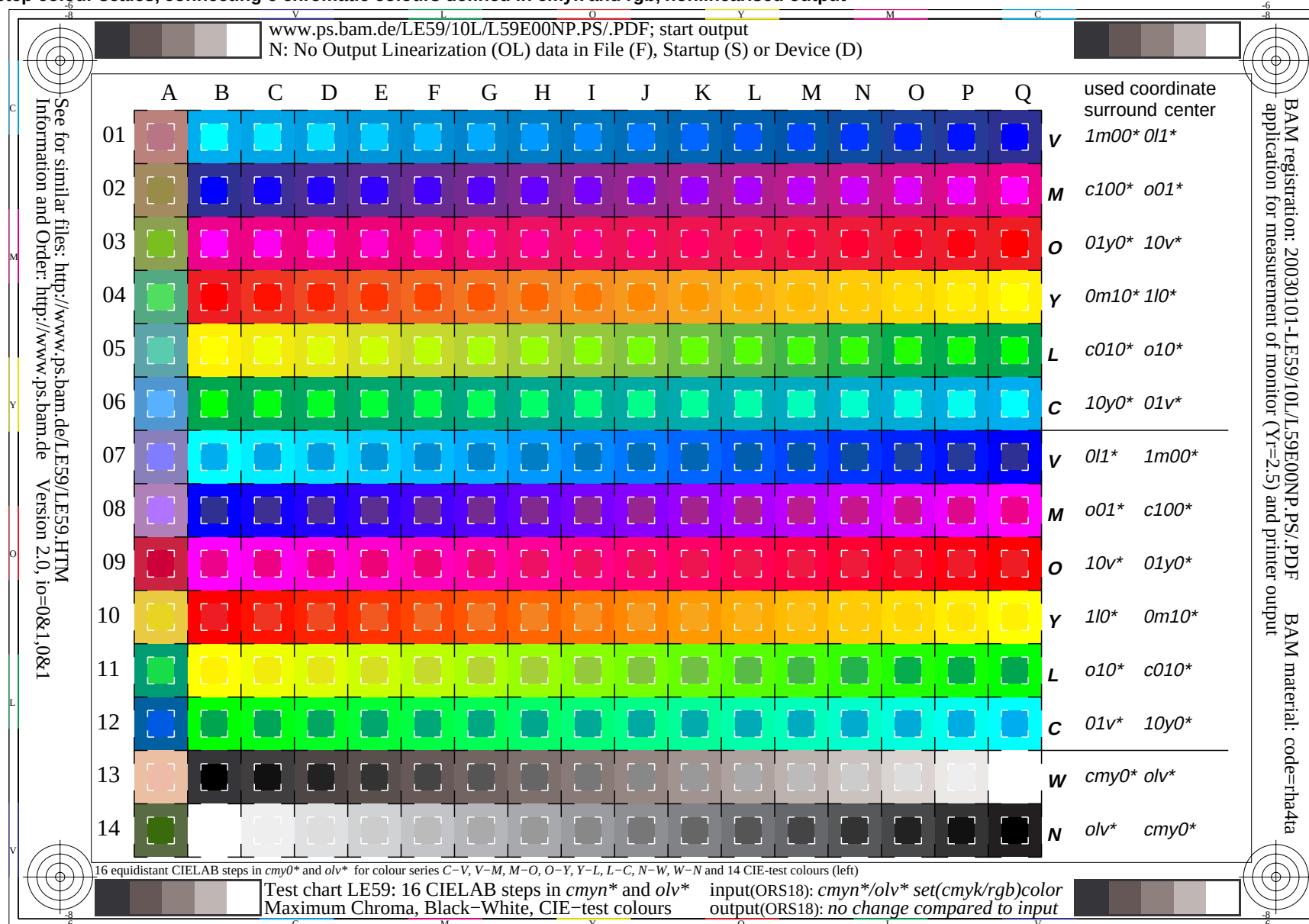
16 step colour scales, connecting 6 chromatic colours, defined in cmyk (upper part) and rgb (lower part)



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16 step colour scales, connecting 6 chromatic colours defined in cmyk and rgb, nonlinearised output



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16 step colour scales, connecting 6 chromatic colours defined in cmyk and rgb, linearised output

