scanner for color slide material:

- three photoelectric sensors
- 0,01 mm image point diameter
- 4096 (12 bits) luminance range

measurement at each pixel:
3 color values *O, L and V*

development intent:
colorimetric device driver:

conversion of three color values ***O, L and V*** in color parameters ***L*, a* and b*** (CIELAB-system)

problems:
large pixel amount:
approximately 3000 × 2000 pixels within a color slide 36 mm × 24 mm
often original size larger than DIN-A2 with drum scanners

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three procedures for optimization of colorimetric device driver:

- adaptation of the spectral sensitivities at the three tristimulus value functions

- optimization of 3 × 3- or 3 × 6- device matrices for conversion from ***OLV to L*a*b**** with 17 CIE-test colors

- calculation of the spectral color reflection or transmission at each image position, for example with three densities of three known dyes (color pigments), only possibly with always homogeneous material presentations (slide material, printing material)