



PRINCIPLES OF CONTRACTUAL SOFT PROOF

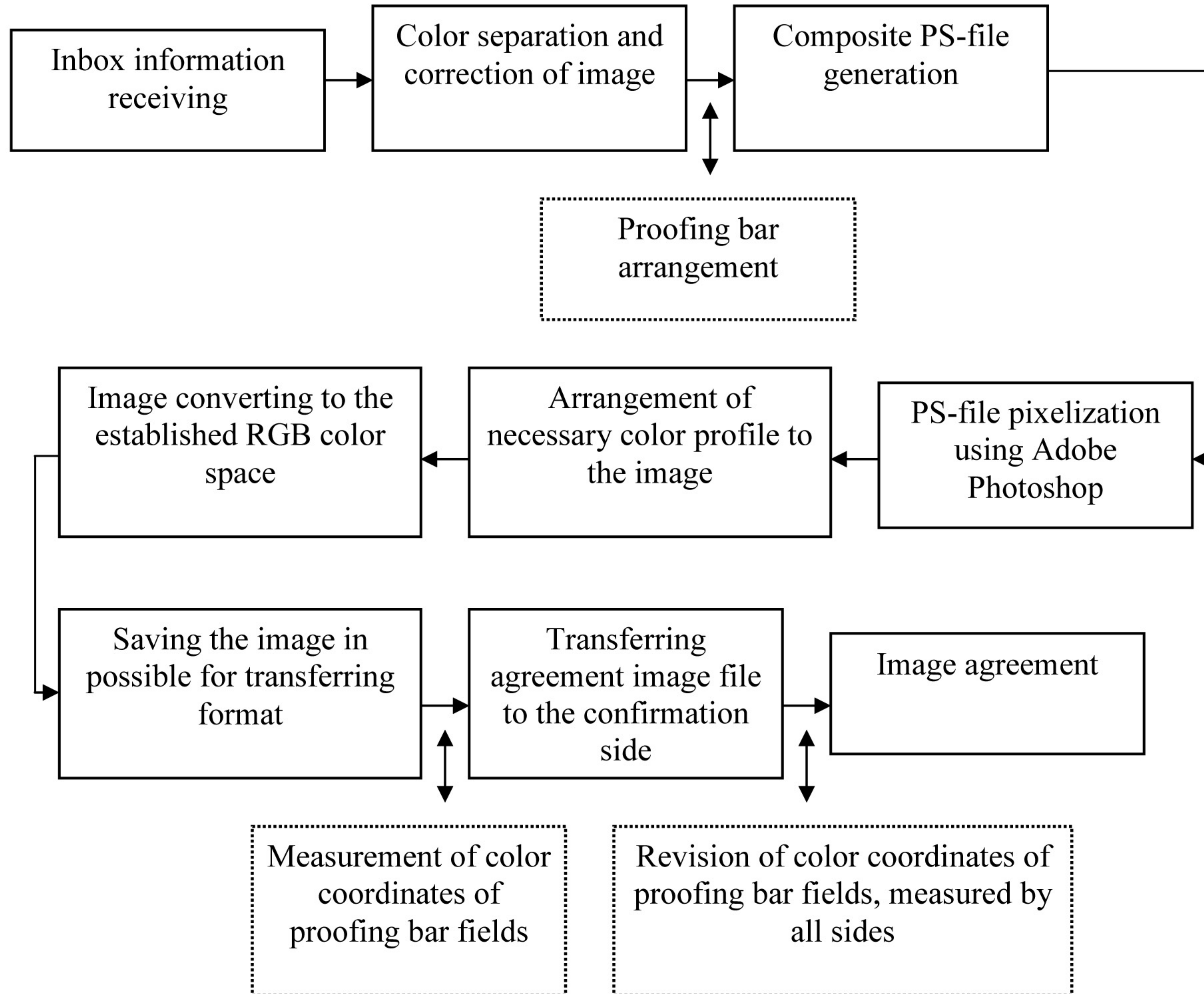
*Oleg Pankin, post-graduate student of MSUPA
Scientific adviser: Doctor of Science, professor Uriy Sergeevich Andreev*

SOFT PROOF SYSTEM COLORIMETRIC SETUP PARAMETERS

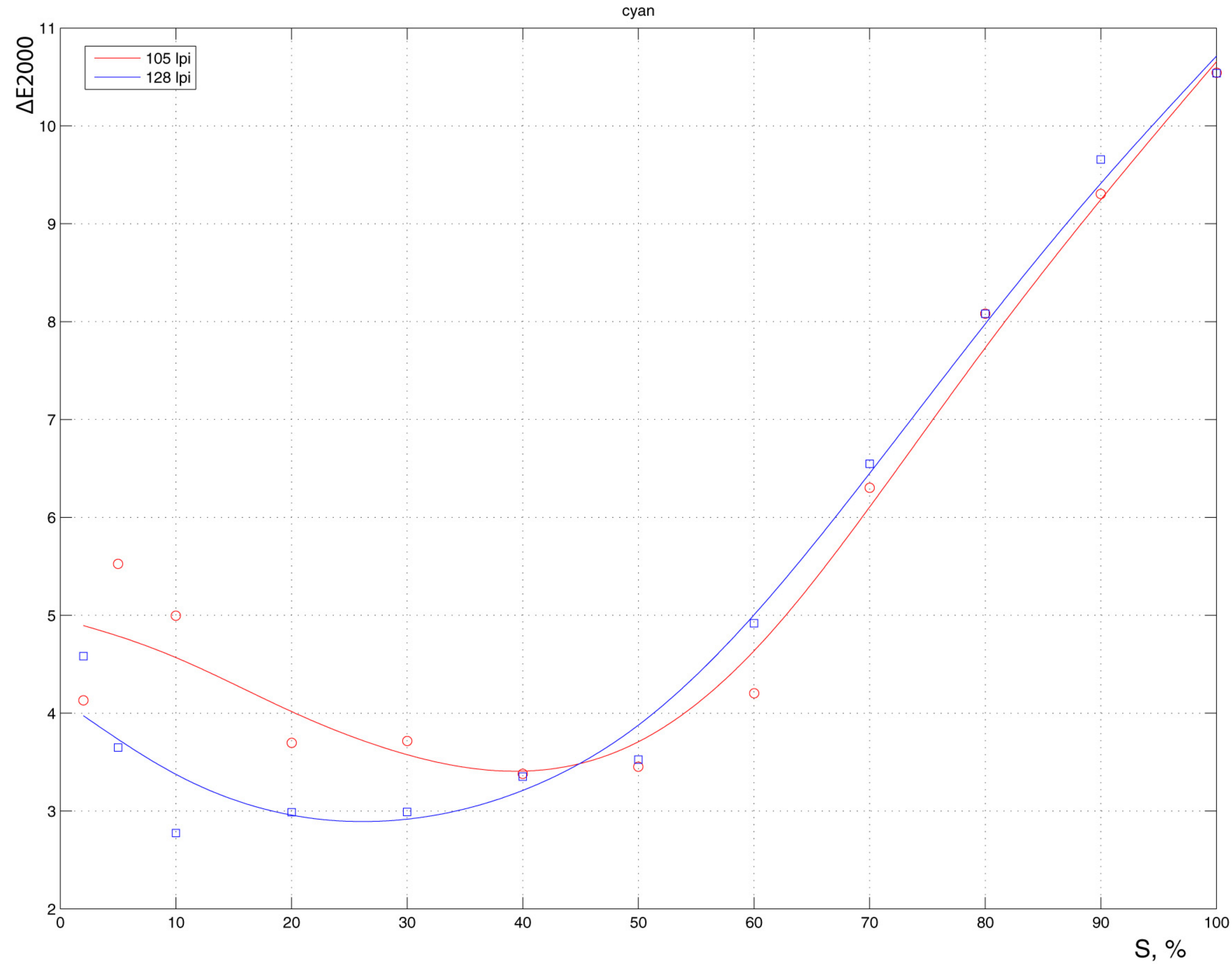


Parameter	Value
White point radiance	110 cd/m ²
White point chromaticity (color temperature)	6500 K
Necessary energy contrast	1,8 – 2,2
Black point radiance	0,8 – 1,2 cd/m ²
Gamma compensation of nonlinear nature of video system value	$\gamma = 2,2$
Color gamut	Wider or equal to sRGB color gamut
Colorimetric setup periodicity	It is recommended to renew setup every 3 months. Also after every OS reinstall and changes in equipment combination.

WORKFLOW OF CREATING AGREEMENT IMAGE FILE

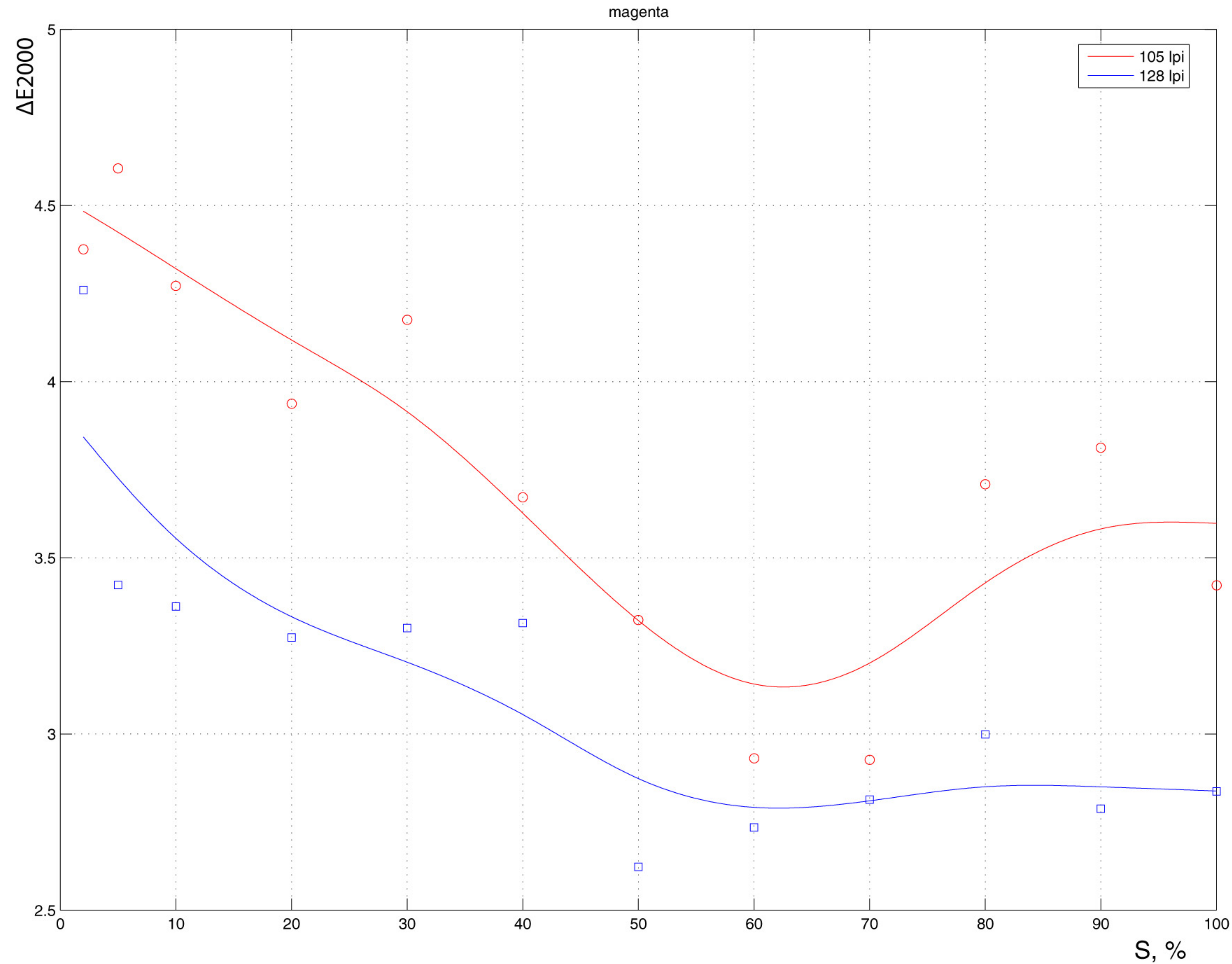


THE INFLUENCE OF THE SCREEN RULING PARAMETER ON THE COLOR REPRODUCTION QUALITY



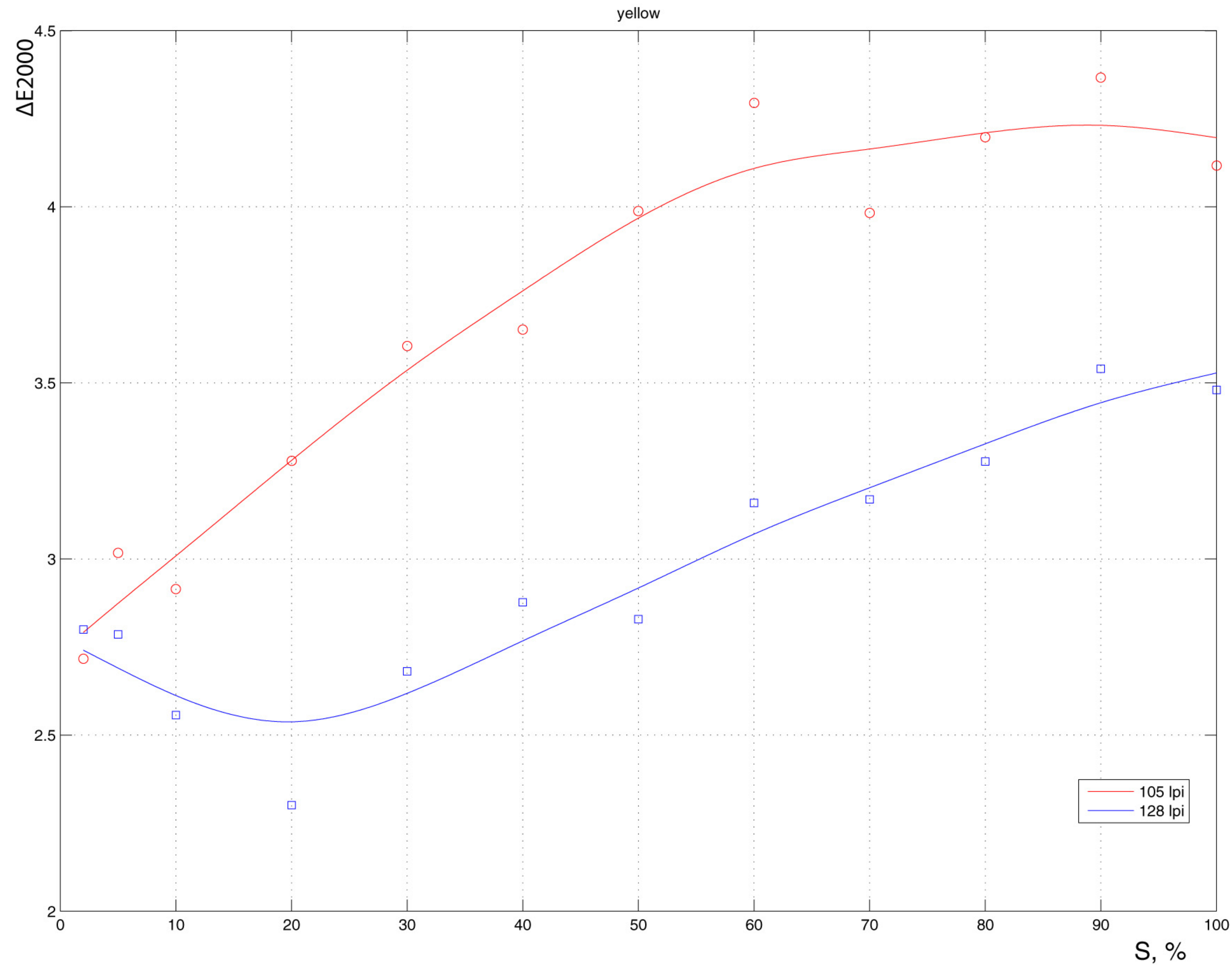
ΔE_{2000} values for two screen rulings on Cyan

THE INFLUENCE OF THE SCREEN RULING PARAMETER ON THE COLOR REPRODUCTION QUALITY



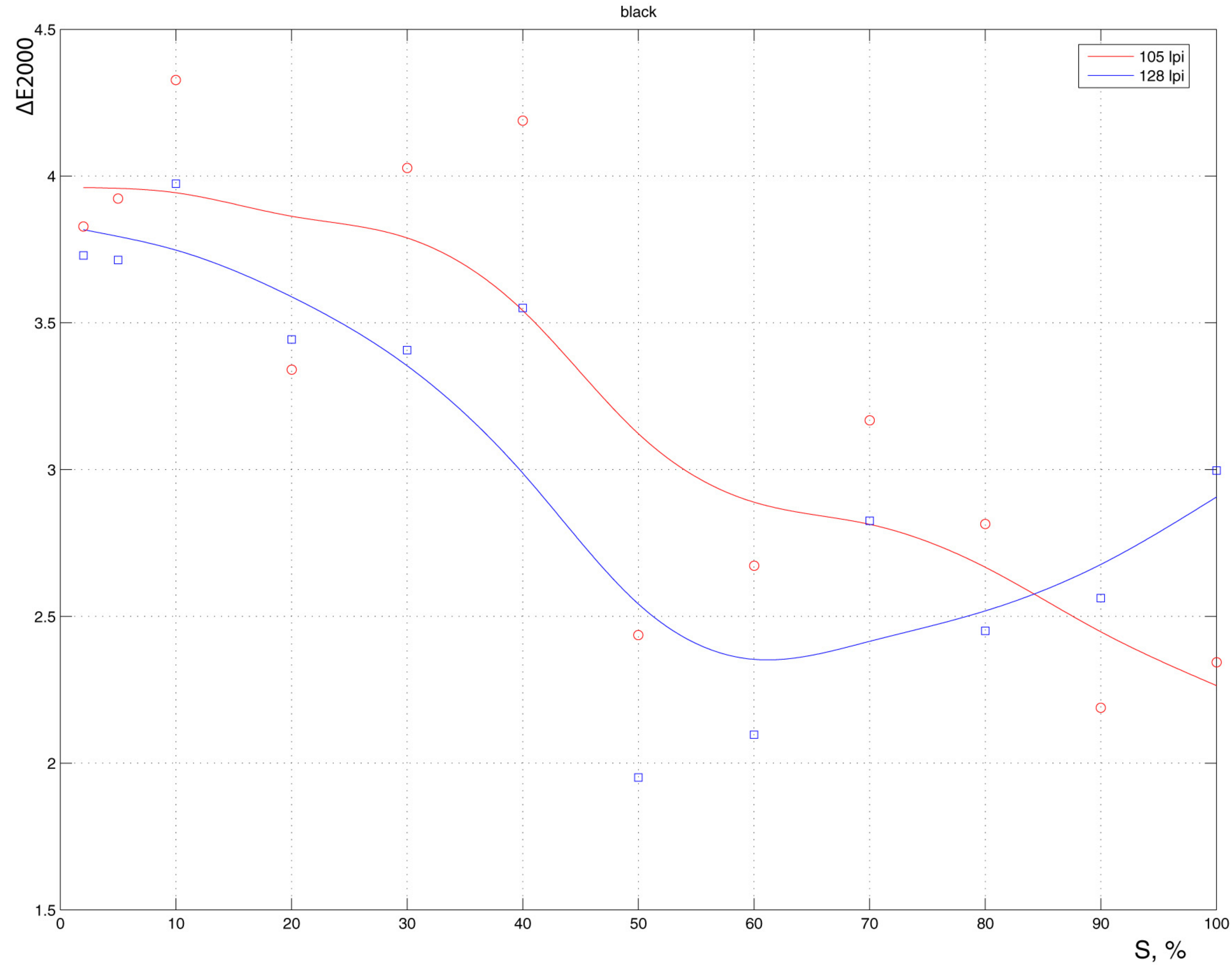
ΔE_{2000} values for two screen rulings on Magenta

THE INFLUENCE OF THE SCREEN RULING PARAMETER ON THE COLOR REPRODUCTION QUALITY



ΔE_{2000} values for two screen rulings on Yellow

THE INFLUENCE OF THE SCREEN RULING PARAMETER ON THE COLOR REPRODUCTION QUALITY



ΔE_{2000} values for two screen rulings on Black

THE INFLUENCE OF THE SUBSTRATE PARAMETER ON THE COLOR REPRODUCTION QUALITY

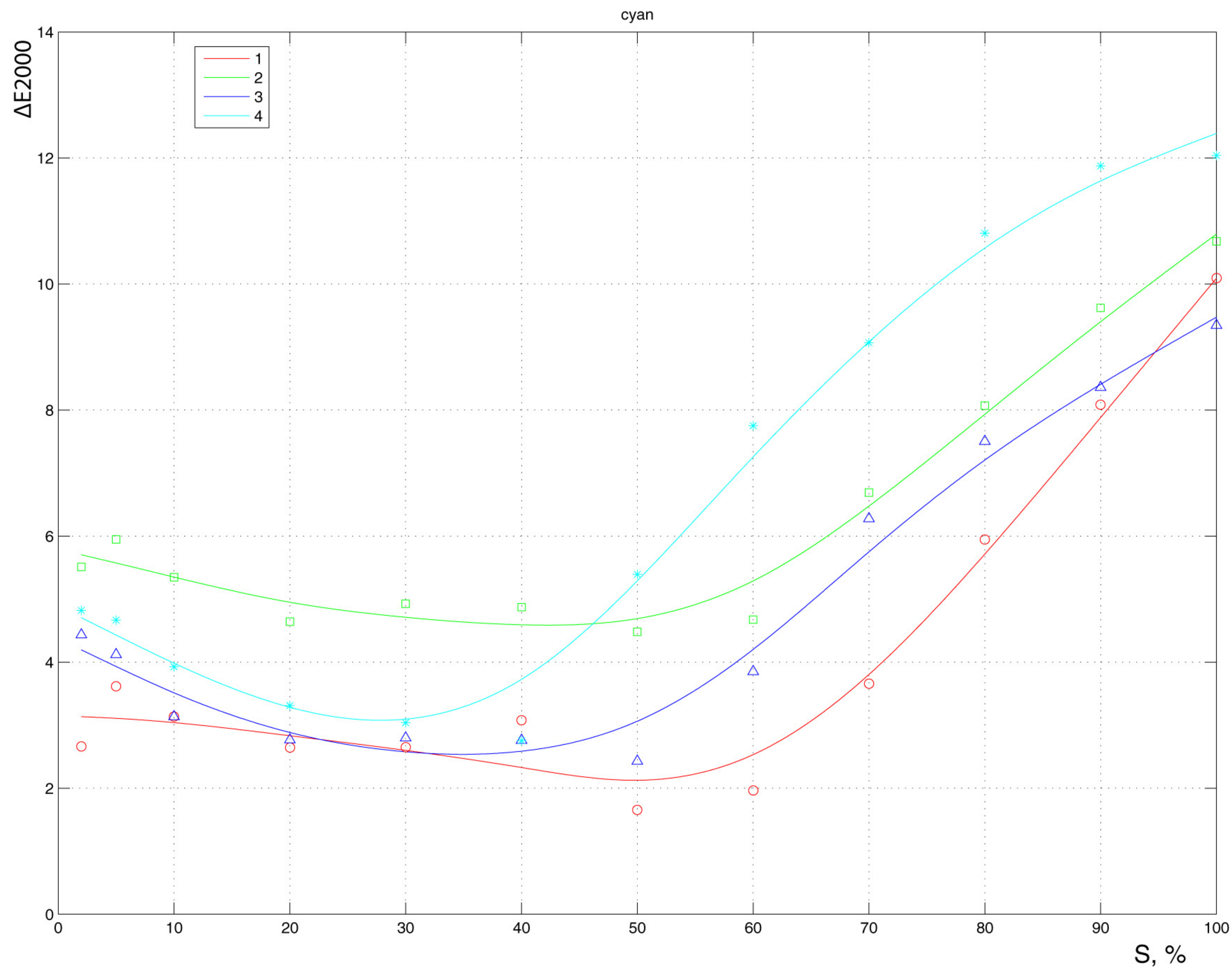


1 - the polypropylene with foam stuff

2 - metallized polypropylene laminated with transparent polypropylene

3 - the polypropylene with foam stuff laminated with transparent polypropylene

4 - two layers of transparent polypropylene

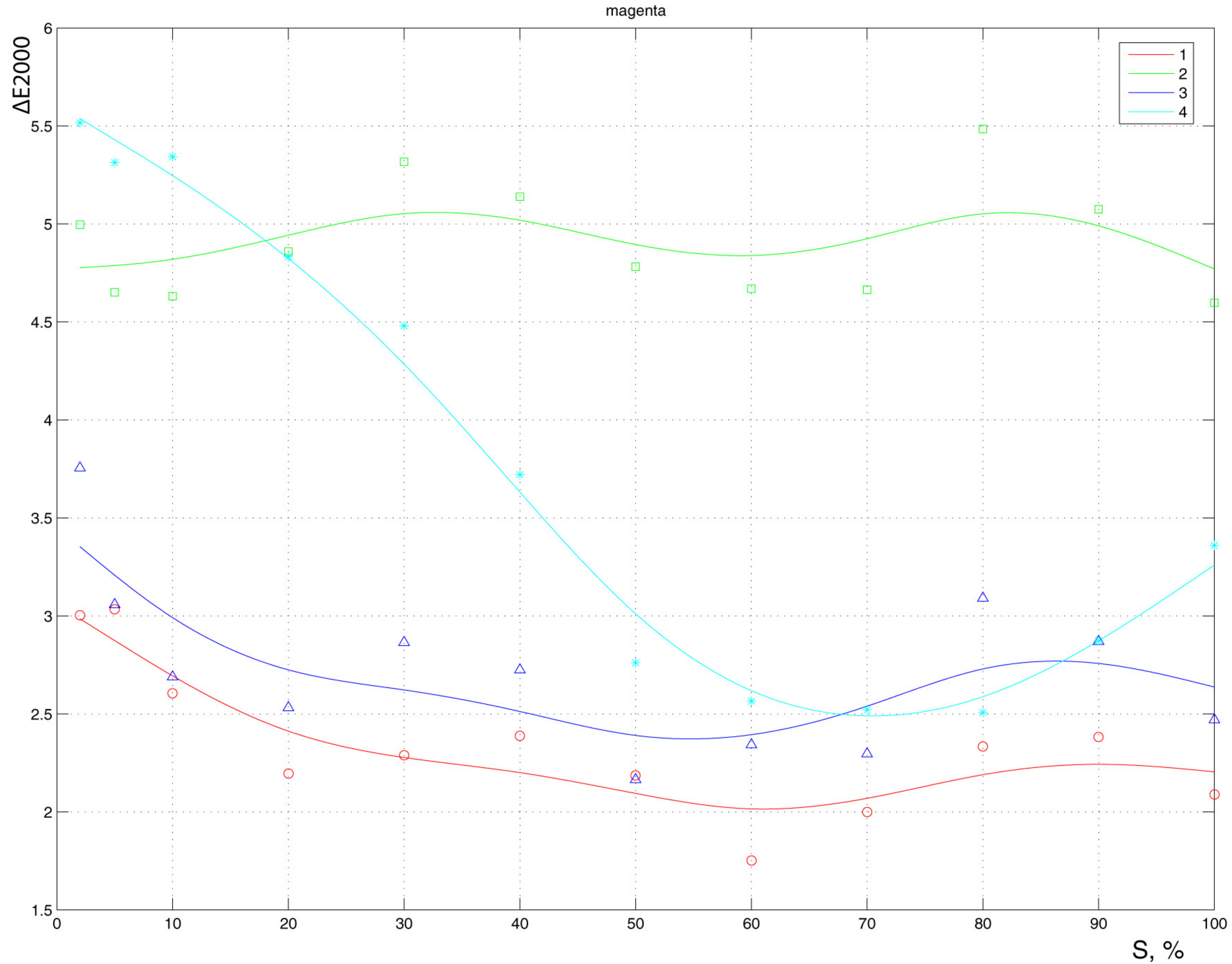


ΔE_{2000} values for four substrates on Cyan

THE INFLUENCE OF THE SUBSTRATE PARAMETER ON THE COLOR REPRODUCTION QUALITY



- 1 - the polypropylene with foam stuff
- 2 - metallized polypropylene laminated with transparent polypropylene
- 3 - the polypropylene with foam stuff laminated with transparent polypropylene
- 4 - two layers of transparent polypropylene

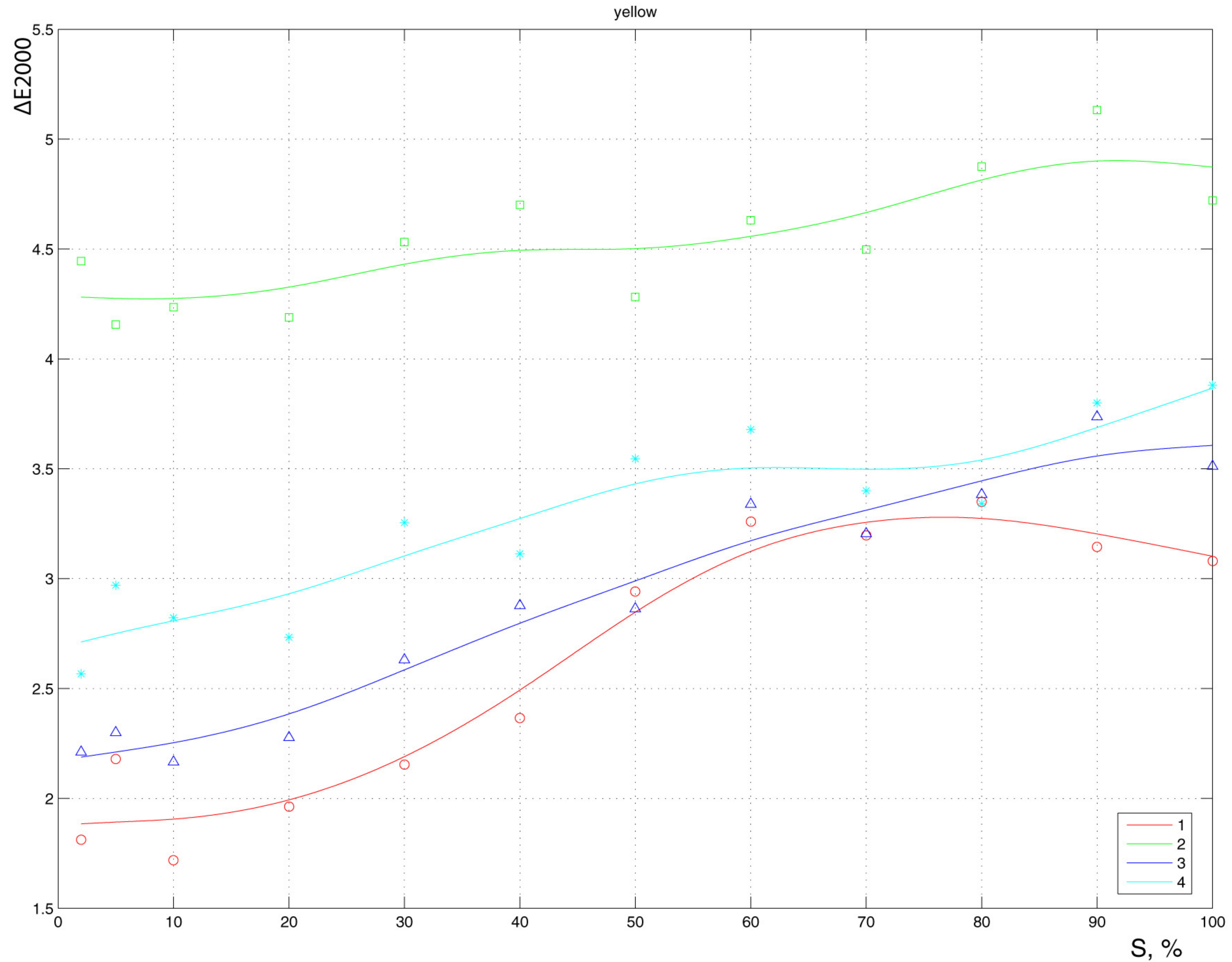


ΔE2000 values for four substrates on Magenta

THE INFLUENCE OF THE SUBSTRATE PARAMETER ON THE COLOR REPRODUCTION QUALITY



- 1 - the polypropylene with foam stuff
- 2 - metallized polypropylene laminated with transparent polypropylene
- 3 - the polypropylene with foam stuff laminated with transparent polypropylene
- 4 - two layers of transparent polypropylene

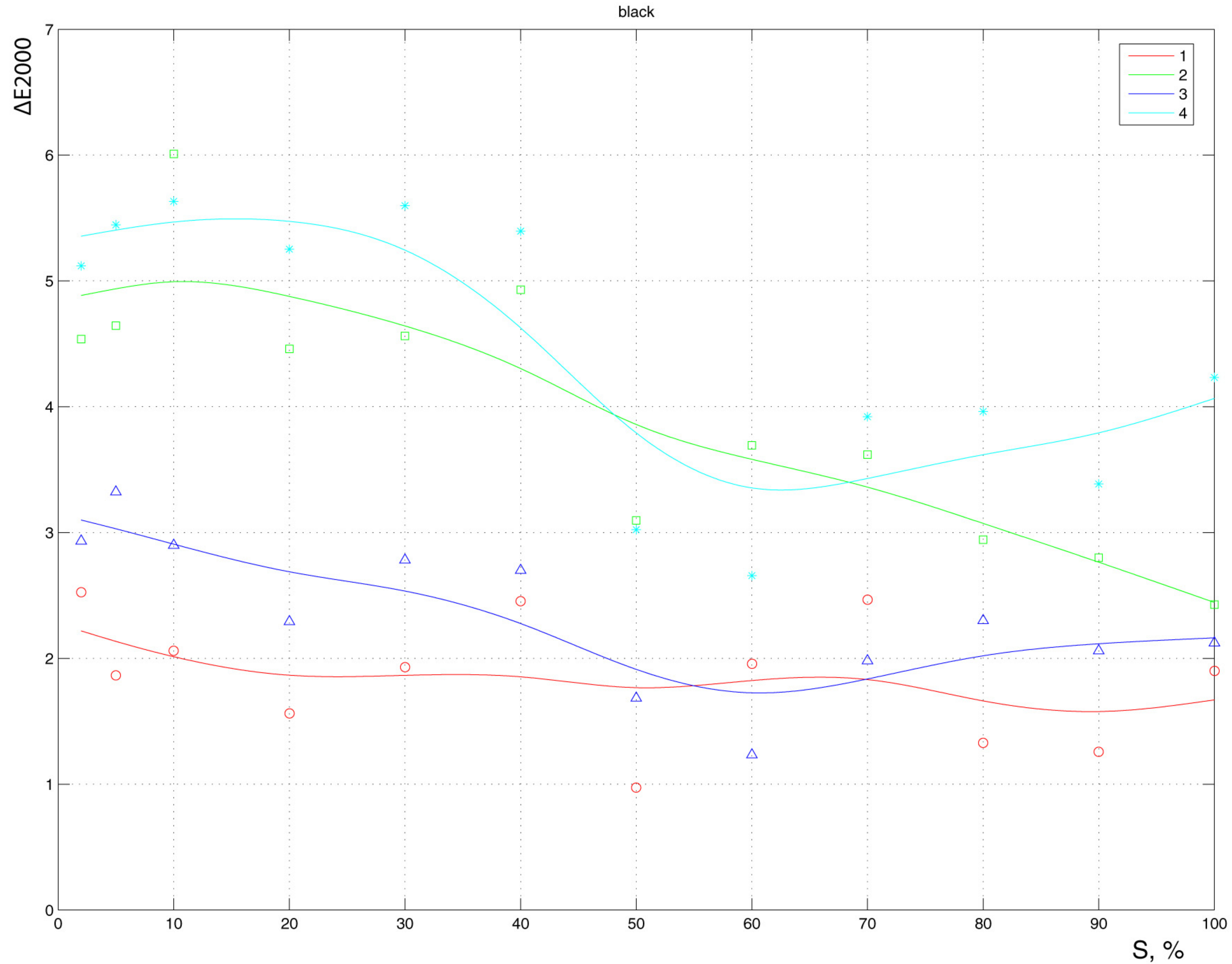


ΔE2000 values for four substrates on Yellow

THE INFLUENCE OF THE SUBSTRATE PARAMETER ON THE COLOR REPRODUCTION QUALITY

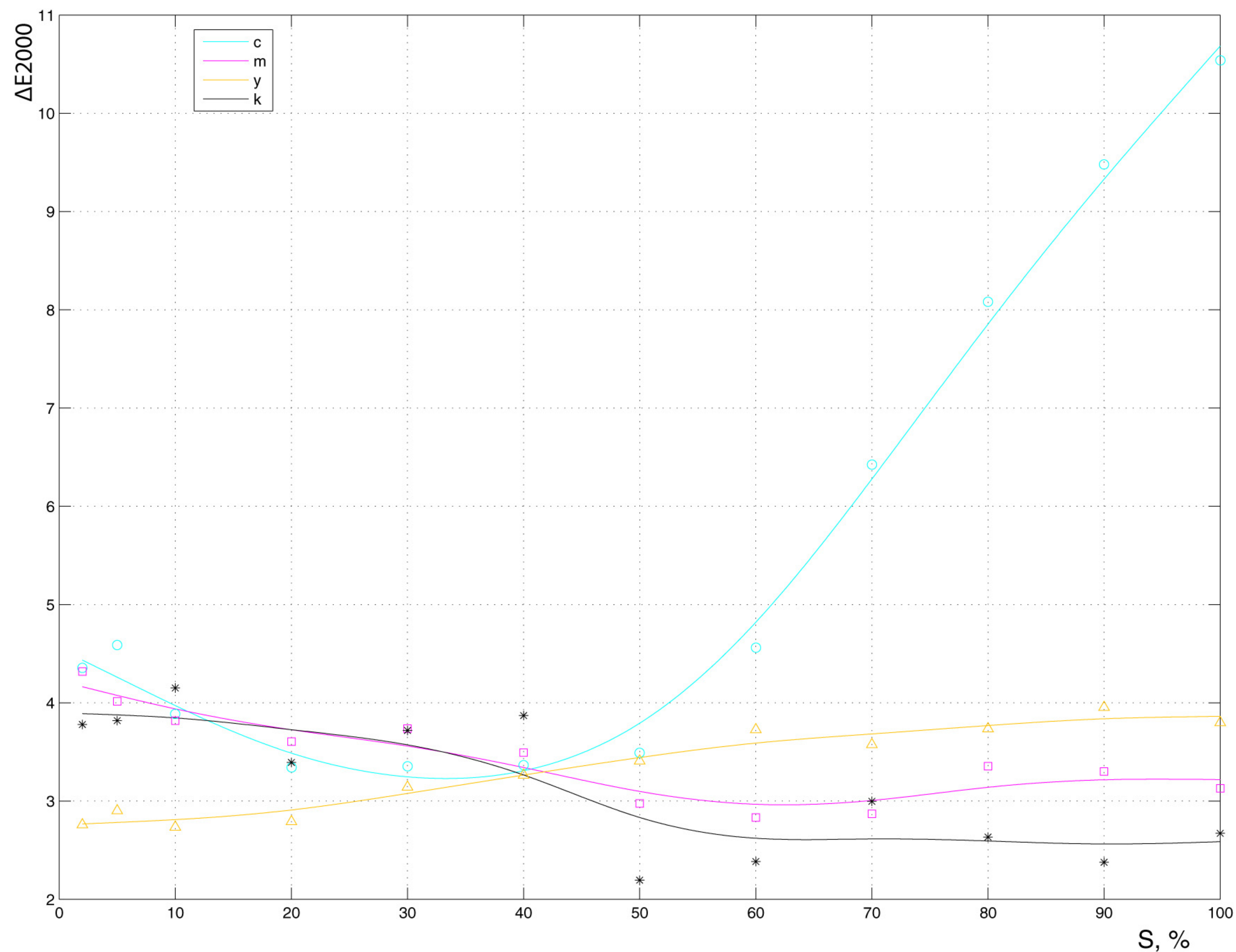


- 1 - the polypropylene with foam stuff
- 2 - metallized polypropylene laminated with transparent polypropylene
- 3 - the polypropylene with foam stuff laminated with transparent polypropylene
- 4 - two layers of transparent polypropylene



ΔE2000 values for four substrates on Black

THE INFLUENCE OF THE TRIAD COLOR OF SUBTRACTIVE PRINTING PARAMETER ON THE COLOR REPRODUCTION QUALITY

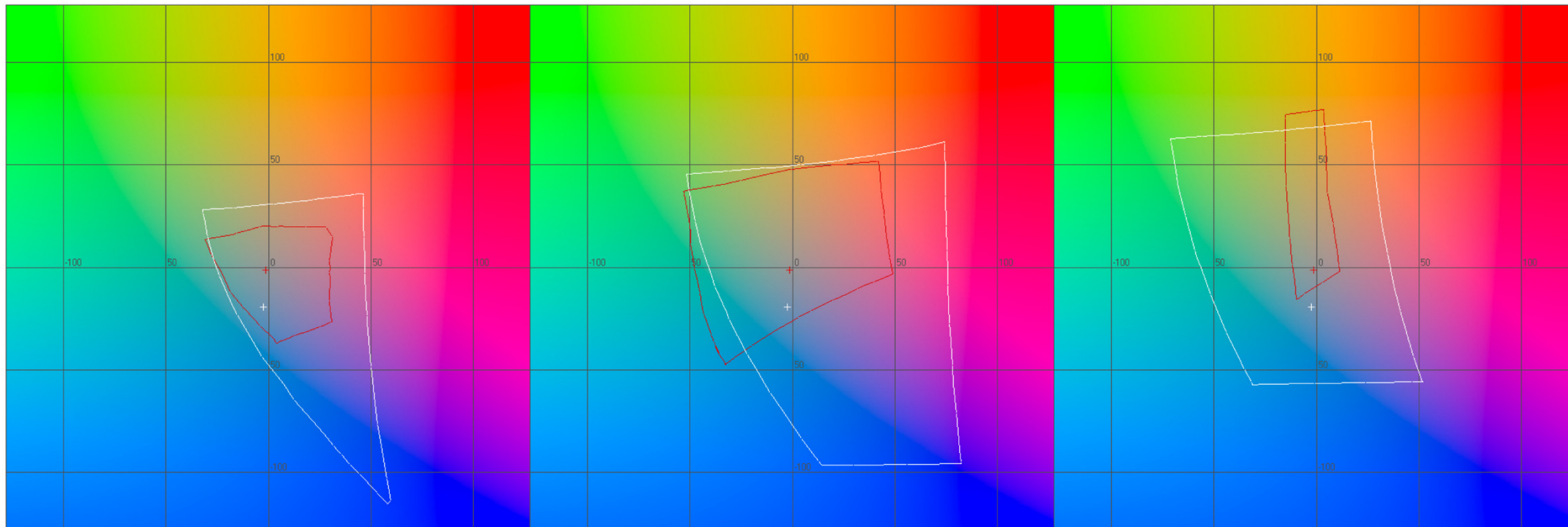


ΔE_{2000} values averaged within each triad color of subtractive printing CMYK for eight printing processes

COLOR GAMUTES OF THE PRINTING PROCESS AND sRGB IN CIE L*a*b* COLOR SPACE



Red line - the printing process
White line - sRGB



$L = 25$

$L = 50$

$L = 75$