CIE R8-13 Common Colour Appearance Proposed assessment method

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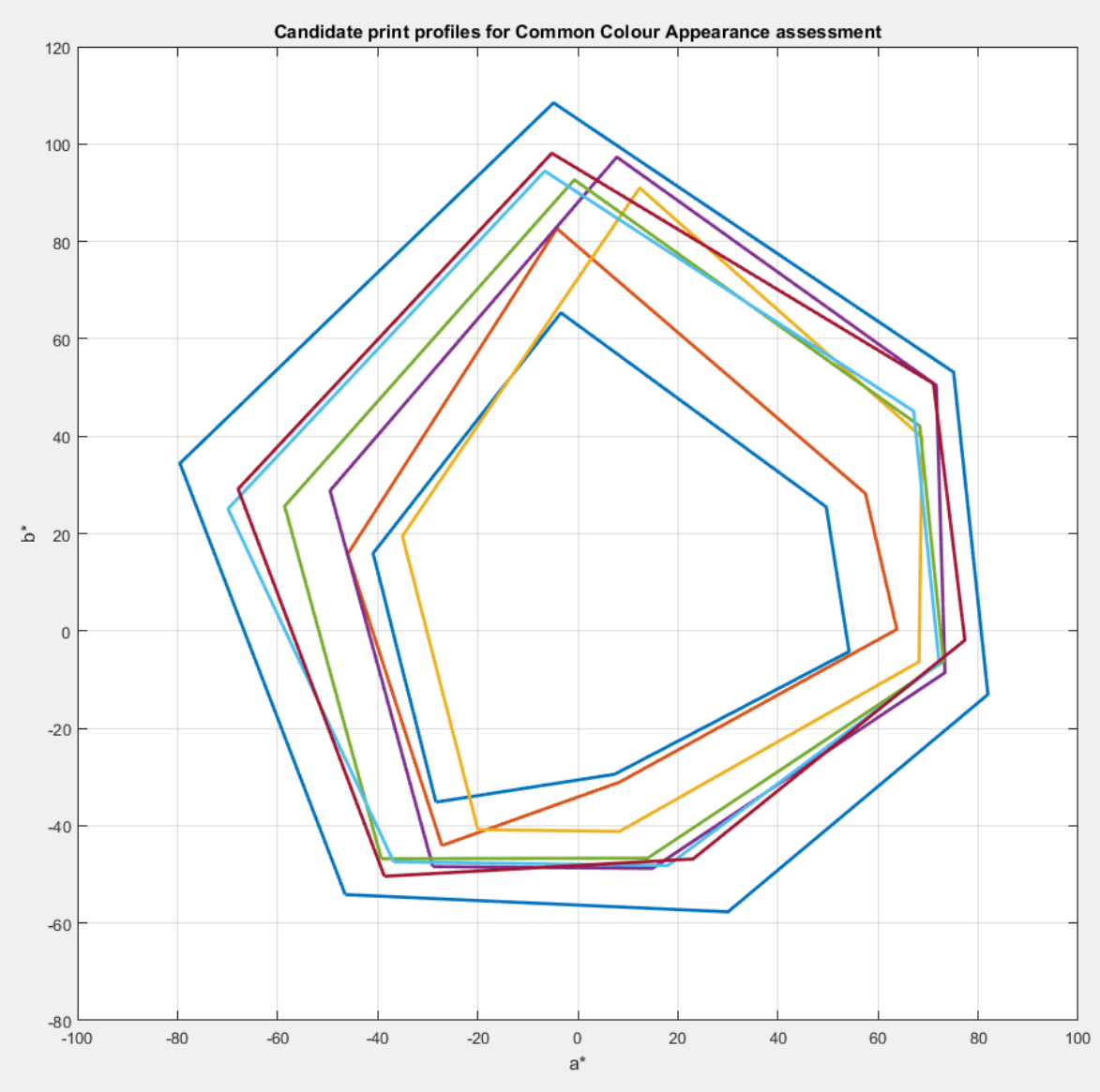
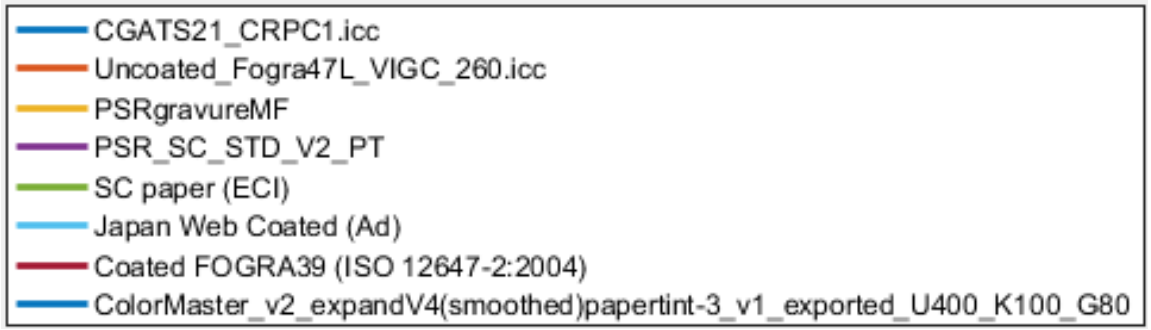
(following ICC review)

This presentation provides some suggestions as to how to optimise our efforts by standardising some aspects of the assessment - these suggestions are likely to be modified following discussion

Candidate print gamuts

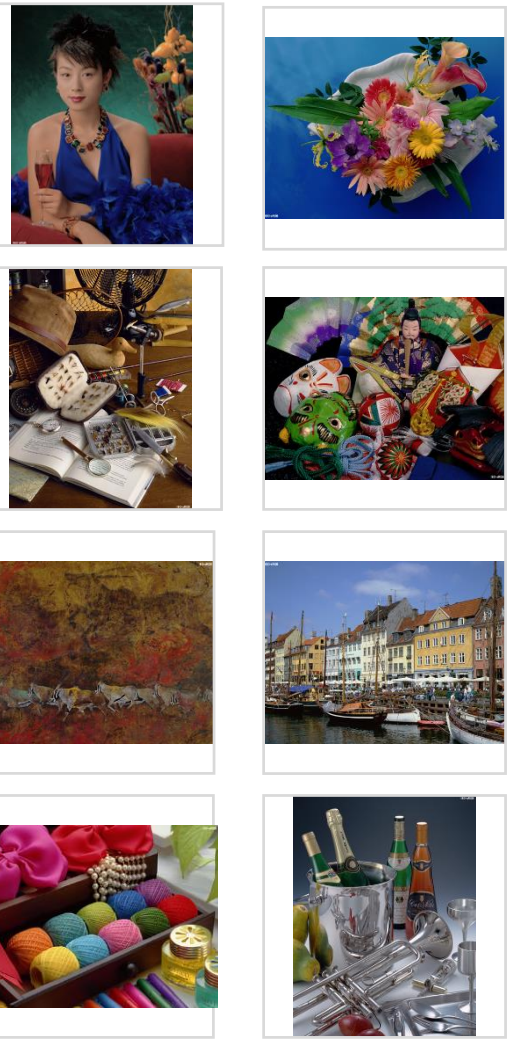




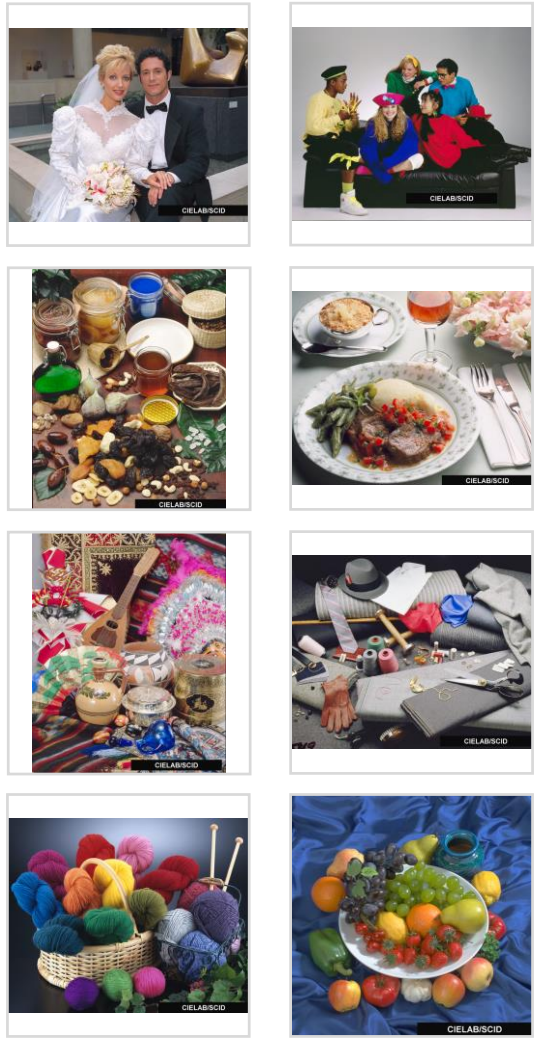
CGATS21_CRPC1: ICC profile registry
Uncoated_Fogra47L: ICC profile registry
PSRgravureMF: ECI web site
PSR_SC_STD_V2_PT: ECI web site
SC paper (ECI): ICC profile registry
Japan Web Coated (Ad): Adobe web site
Coated FOGRA39: Adobe web site
ColorMaster…: Fogra web site

Note: it is not intended that these profiles should be used for rendering directly. Ideally the associated characterisation data should be used but with some care the A2B1 tables (Absolute Intent) can be used to determine the colour produced by each CMYK combination

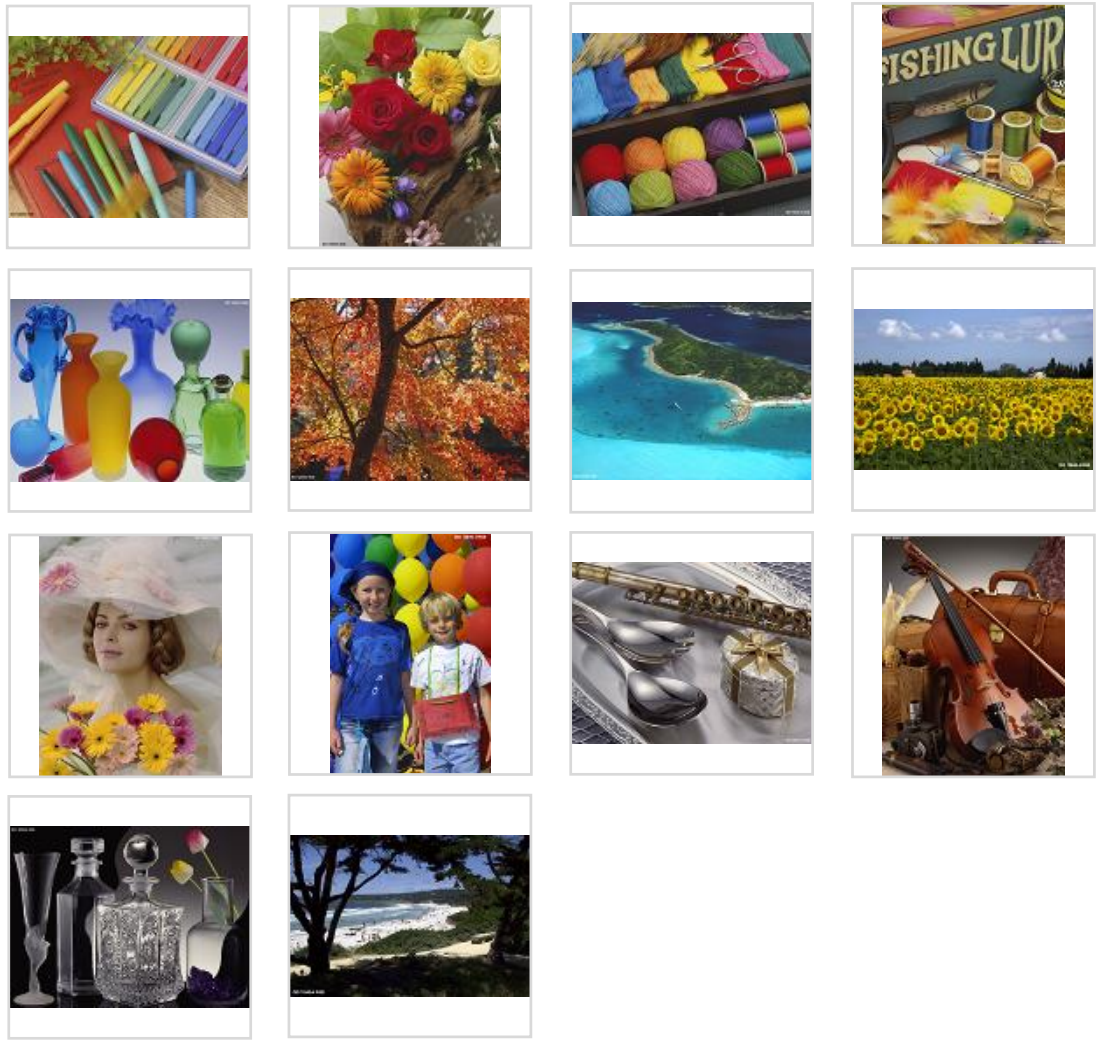
Candidate images (ISO 12640 SCID)



ISO12640-2 sRGB SCID

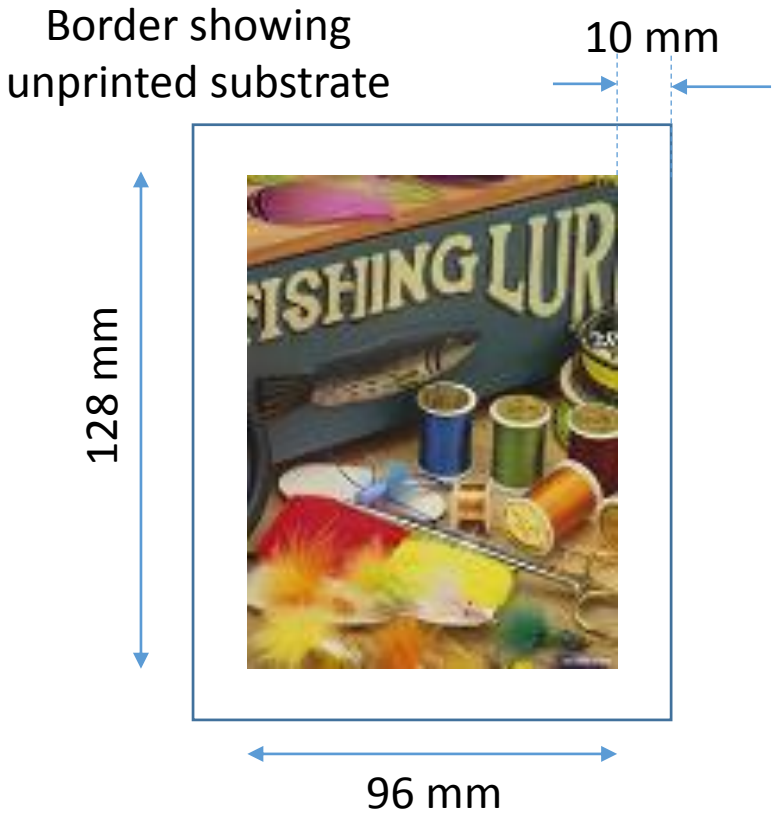


ISO12640-3 CIELAB SCID



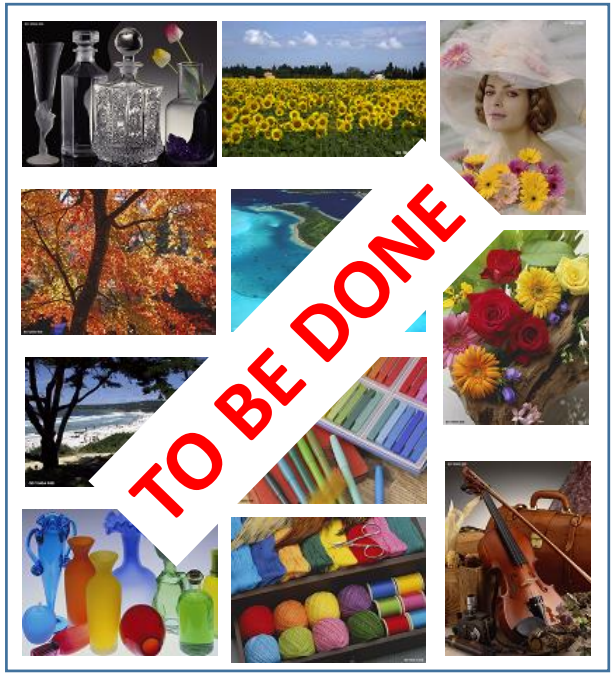
ISO12640-4 AdobeRGB SCID

Candidate images (ISO 12640 SCID)



Images should be printed at
approximately the same size

Primary image set



Secondary set

Image sets

Munsell N5 grey background at least 2x white margin

Gamut 1 Gamut 2 Gamut 3 Gamut 4 Gamut 5

Set of images prepared for each print gamut using algorithm A

Set of images prepared for each print gamut using algorithm B

Common colour appearance test (a)

Fixed viewing environment ISO 3664:2000 P2

Rank sets of images based on how similar the set of images in the set are to each other

Common colour appearance test (b)

Fixed viewing environment ISO 3664:2000 P2

Rank sets of images based on which is preferred either as a set or for rendering to each gamut

Common colour appearance test (c)

Fixed viewing environment ISO 3664:2000 P2

Each observer should create a ‘champion set’ with the best rendering for each gamut selected

The objective of this experiment is to determine whether observers select the same set of images

Simultaneous vs sequential assessment

- We did not use sequential assessment for this experiment as it would significantly increase the time needed
  - it would be helpful to know whether observers reach the same result for simultaneous and sequential viewing
  - if the result is different it would be helpful to know where the differences lie
- We should conduct a second experiment using one of the rendering algorithms where sequential viewing is used

Discussion