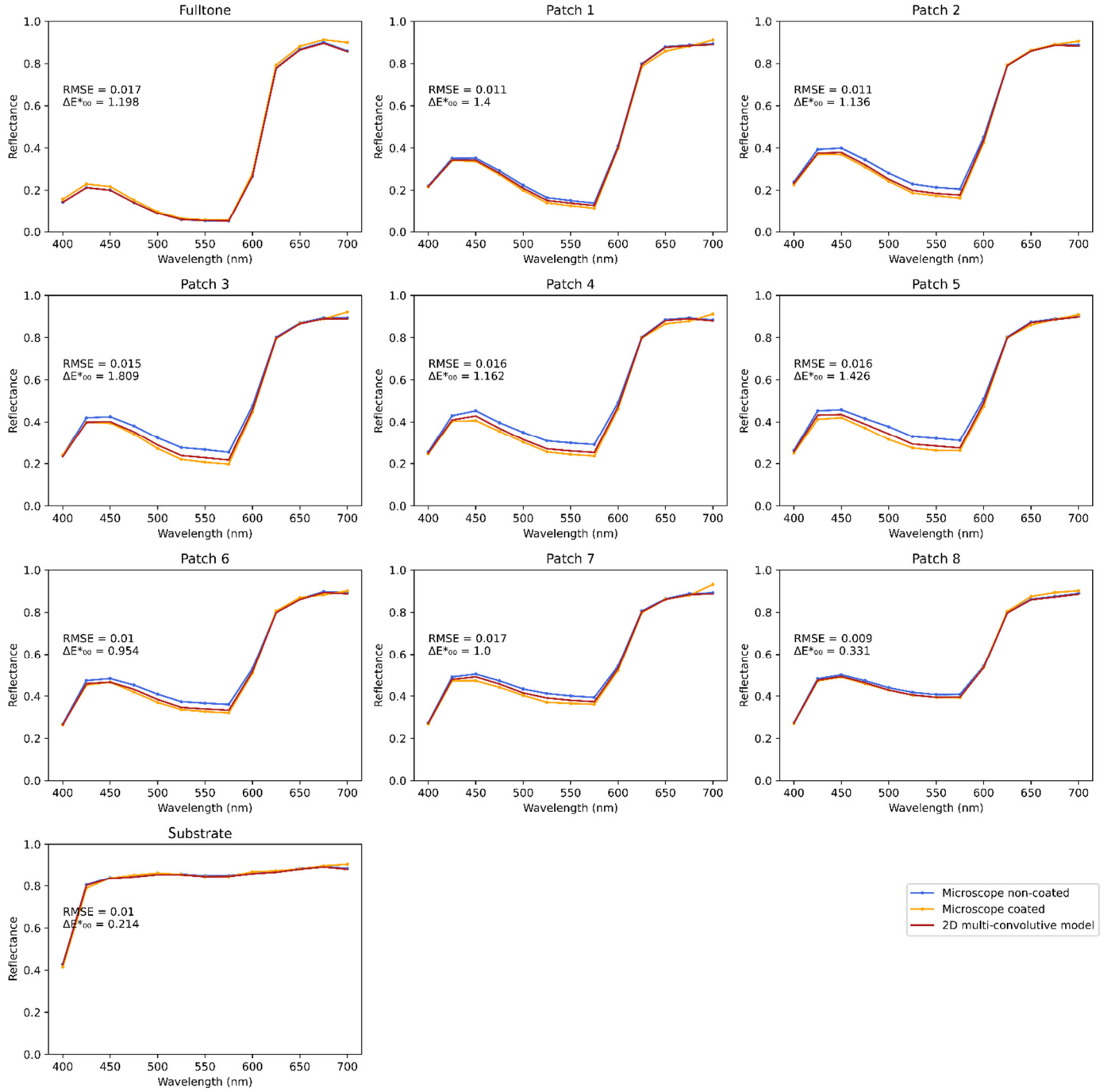
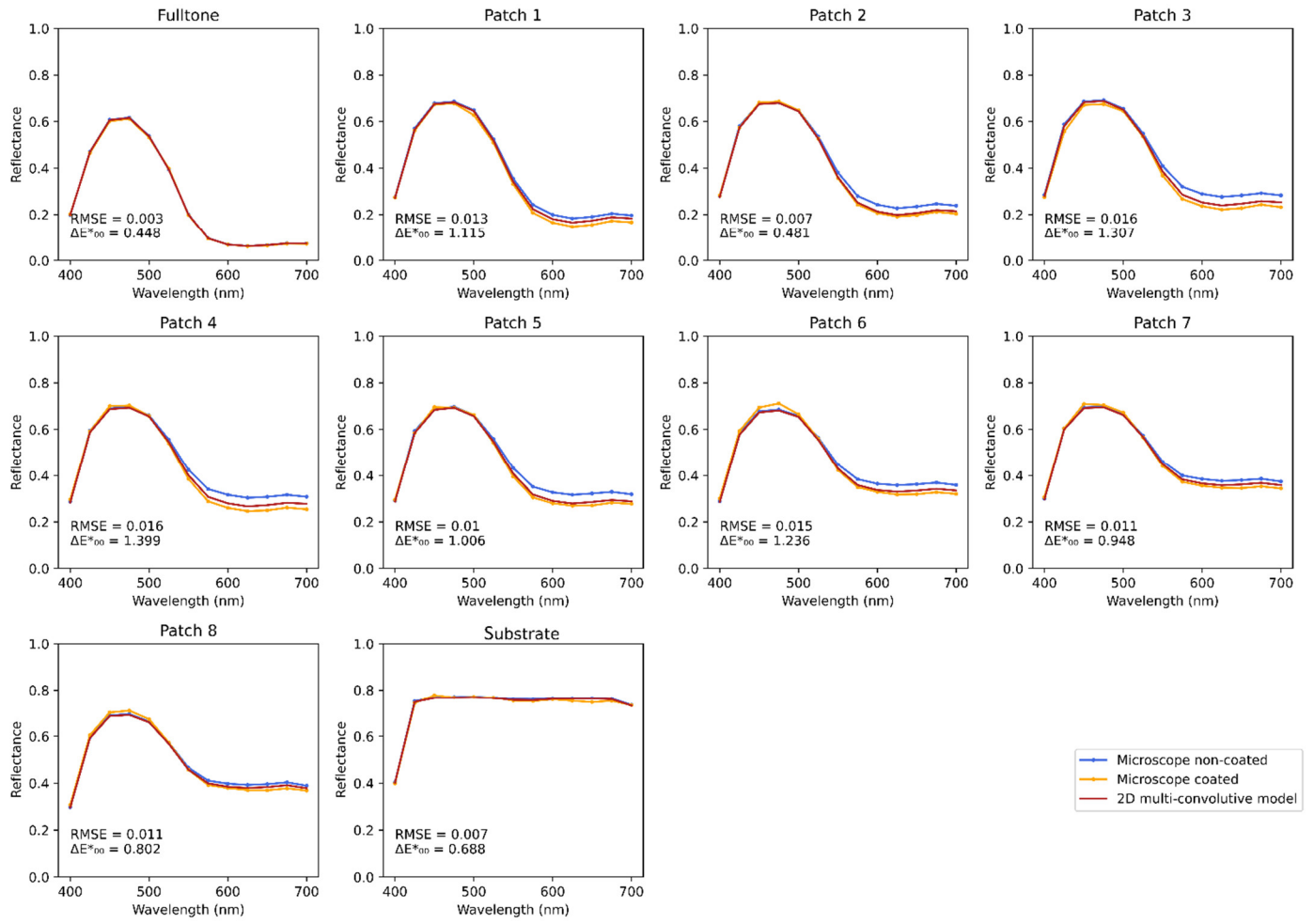


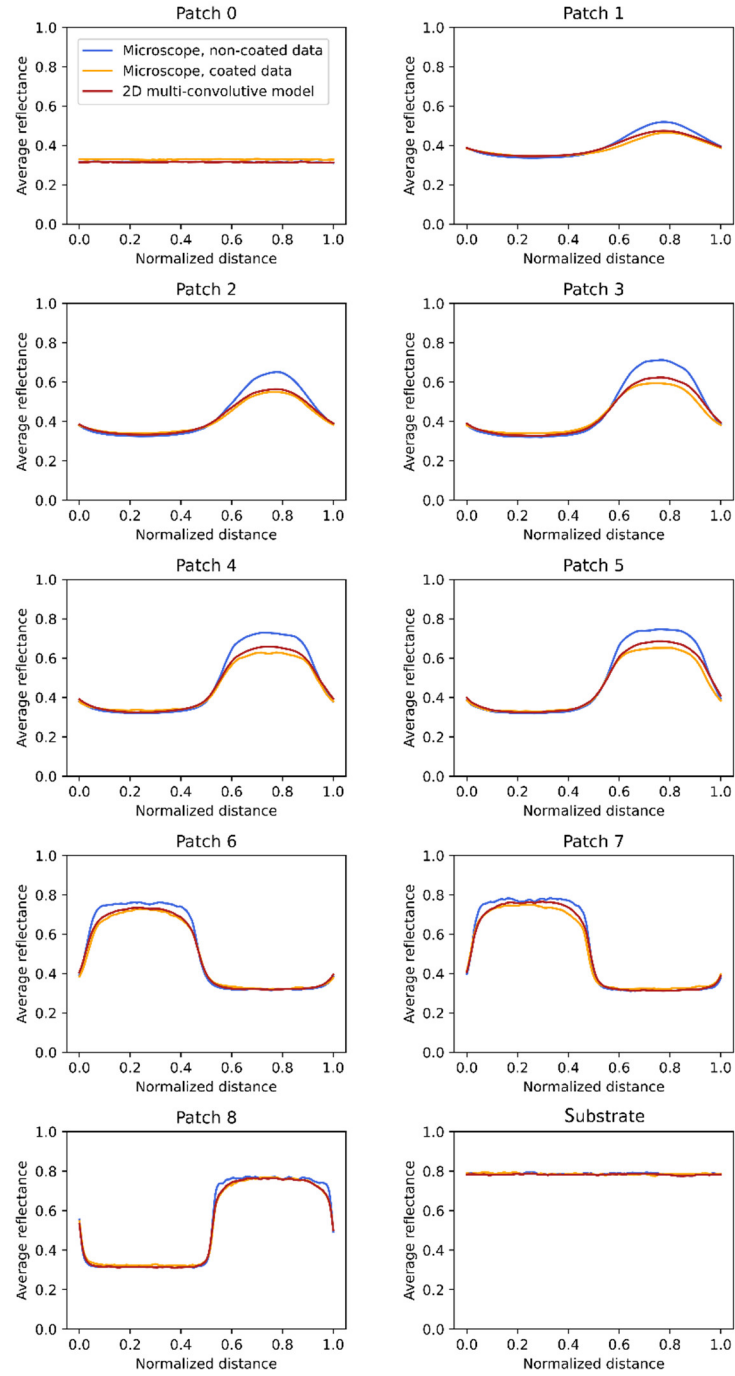
The figures displayed in this section aim at presenting the performances of the 2D multi-convolutive model when the value of the parameter  $\gamma$ , related to average path length of the light within the coating layer, is 1 (or, equivalently, when this parameter  $\gamma$  is removed from the equations). Figures S1, S2 and S5 present the predictions of the spectral reflectances, with  $\gamma = 1$ , of respectively the magenta, cyan, and multi-ink halftones. Figures S3 and S4 present the profile predictions, with  $\gamma = 1$ , of respectively the magenta and cyan halftones.



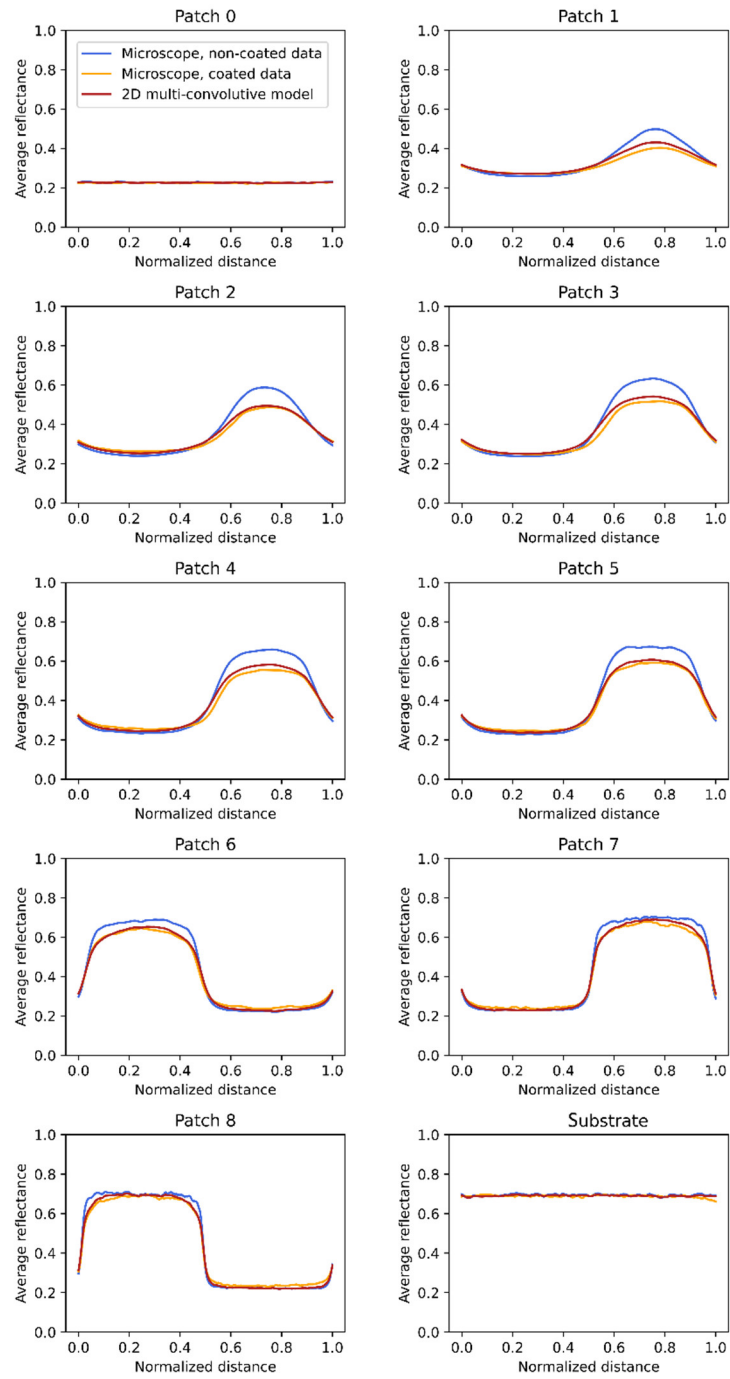
**Figure S1.** Spectra of the magenta line halftones, averaged over the spatial dimension. Patch 1 to 8 have a period of 0.168, 0.252, 0.337, 0.421, 0.505, 0.839, 1.263, and 2.104 mm, respectively. A specular component of 0.04 is added to all spectra. The model predictions are evaluated with  $\gamma = 1$ .



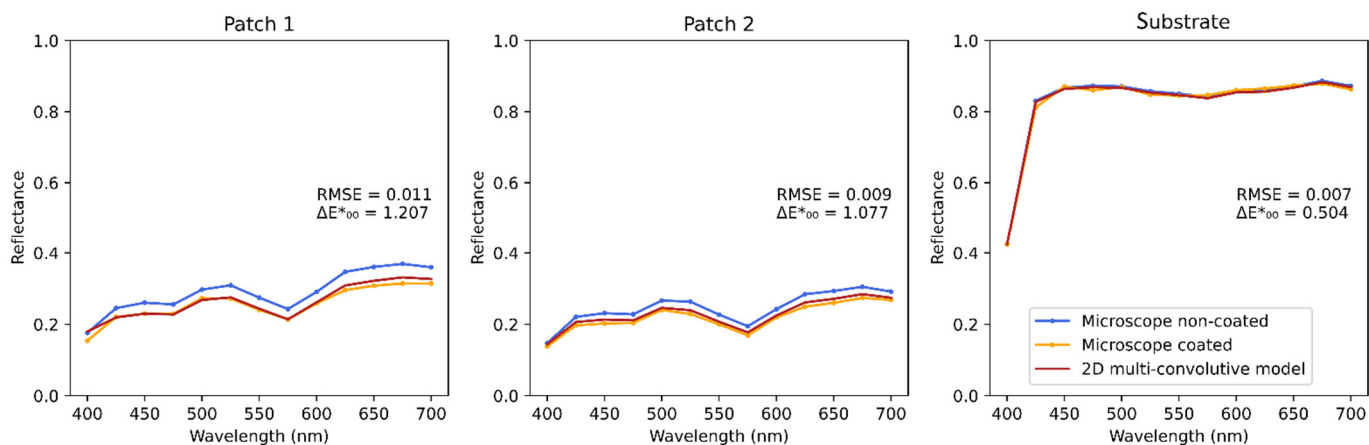
**Figure S2.** Line cyan halftone reflectance spectra, averaged over the spatial dimension. Patch 1 to 8 have a period of 0.168, 0.250, 0.334, 0.420, 0.504, 0.841, 1.259, and 2.104 mm, respectively. A specular component of 0.04 is added to all spectra. The model predictions are evaluated with  $\gamma = 1$ .



**Figure S3.** Magenta halftone reflectance profiles averaged over the spectral dimension. Patch 1 to 8 have a period of 0.168, 0.252, 0.337, 0.421, 0.505, 0.839, 1.263, and 2.104 mm, respectively. The model predictions are evaluated with  $\gamma = 1$ .



**Figure S4.** Cyan halftone reflectance profiles averaged over the spectral dimension. Patch 1 to 8 have a period of 0.168, 0.250, 0.334, 0.420, 0.504, 0.841, 1.259, and 2.104 mm, respectively. The model predictions are evaluated with  $\gamma = 1$ .



**Figure S5.** Average spectra of the multi-ink dot halftones, and of the bare substrate. The model predictions are evaluated with  $\gamma = 1$ .