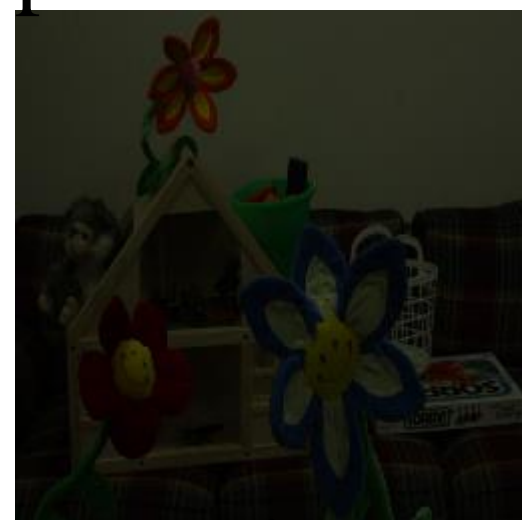


Input color image: I_{v_1, s_L, l_L}^{YUV}



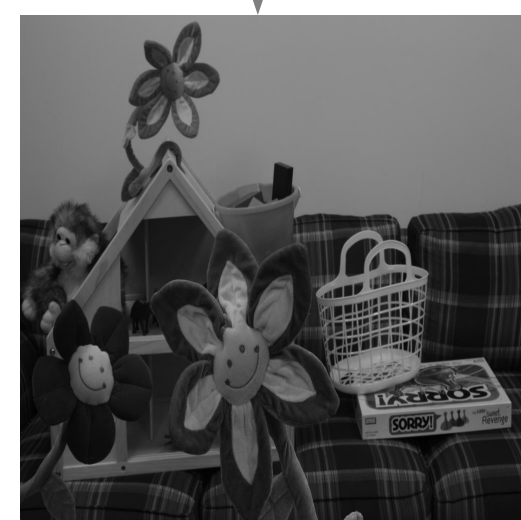
Concatenate

Ref-exposure-
compensation
Module

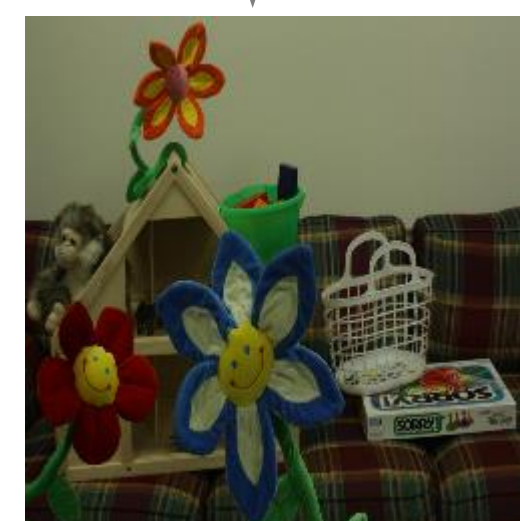
Ref-colorization
Module

Ref-super-resolu-
tion Module

Downsampling



$\tilde{I}_{v_2, s_L, l_H}^Y$



$\tilde{I}_{v_2, s_L, l_H}^{YUV}$



Final image: $\tilde{I}_{v_2, s_H, l_H}^{YUV}$



Input monochrome image: I_{v_2, s_H, l_H}^Y