I = imread('cameraman.tif');

d = im2double(I);

figure, imshow(d);

%log on domain [0,1]

f = d;

c = 1/log(1+1);

j1 = c\*log(1+f);

figure, imshow(j1);

%log on domain [0, 255]

f = d\*255;

c = 1/log(1+255);

j2 = c\*log(1+f);

figure, imshow(j2);

%log on domain [0, 2^16]

f = d\*2^16;

c = 1/log(1+2^16);

j3 = c\*log(1+f);

figure, imshow(j3);

%log on domain [0, 2^4]

f = d\*2^4;

c = 1/log(1+2^4);

j4 = c\*log(1+f);

figure, imshow(j4);