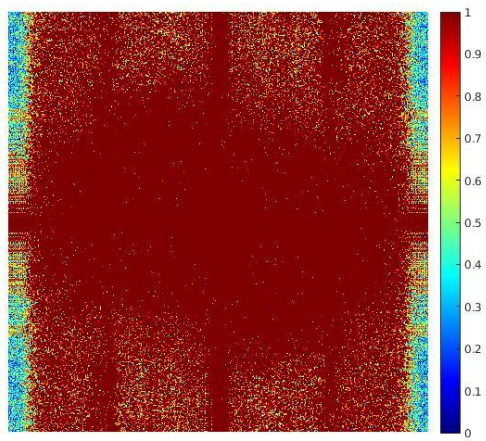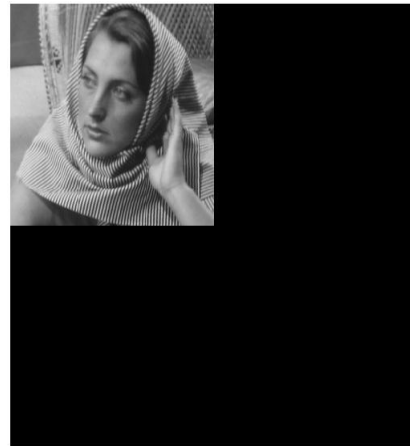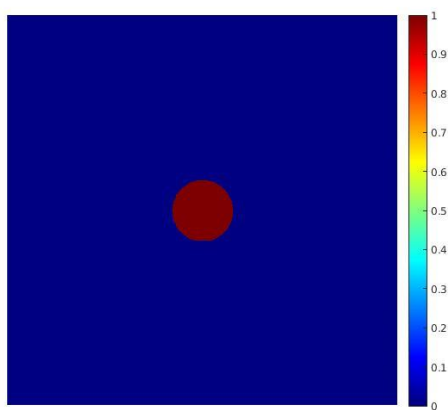1. Freq Response of padded barbara. (IM)
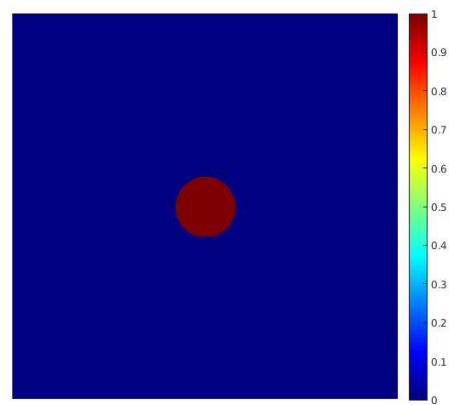

2.Padded barbara:
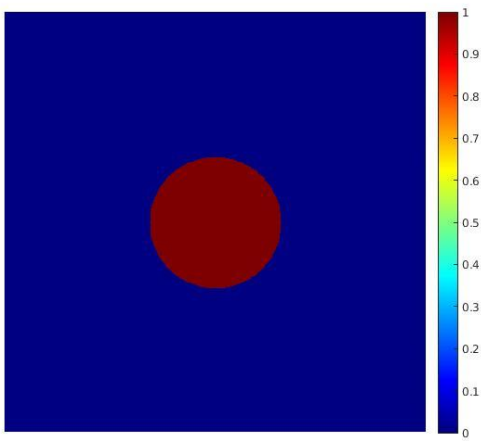

3. Abs LogIdeal LPF with cutoff 40:

4. Log abs Freq Response of the ILPF40 to IM

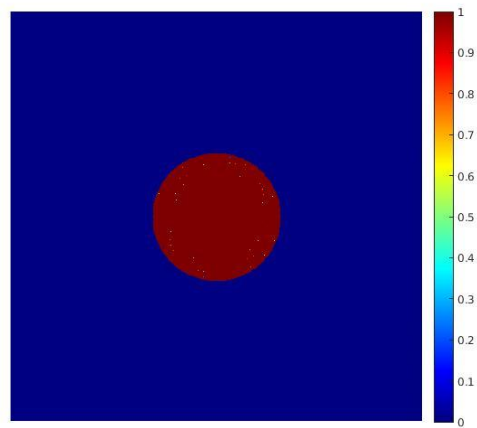
5. Barbara 40

6. Ideal LPF 80

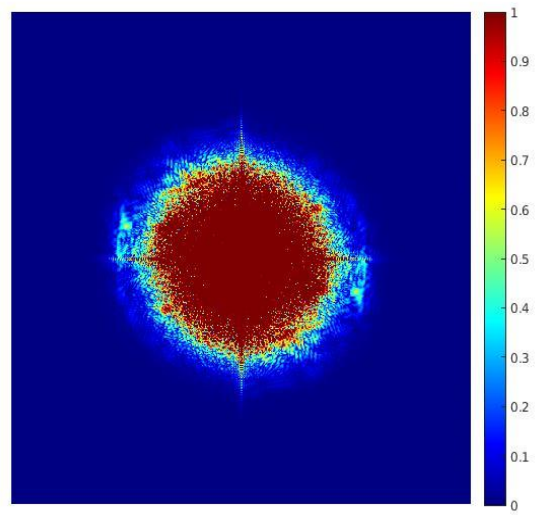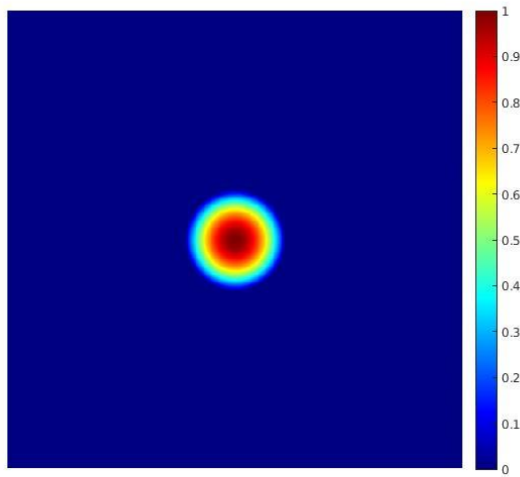
7. Freq Response of IM at LPF80

8. Barbara ILPF filtered 80

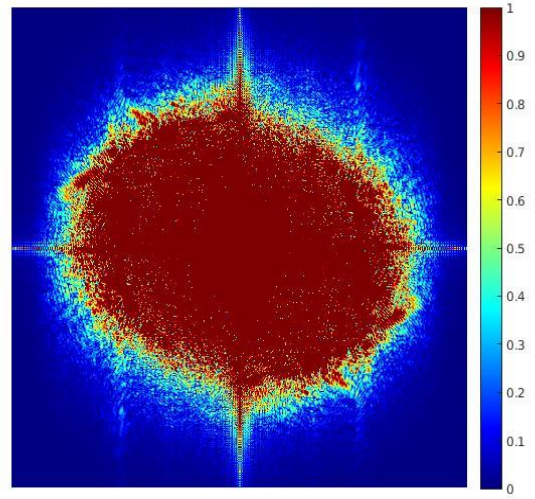9. Gauss LPF sigma 40.
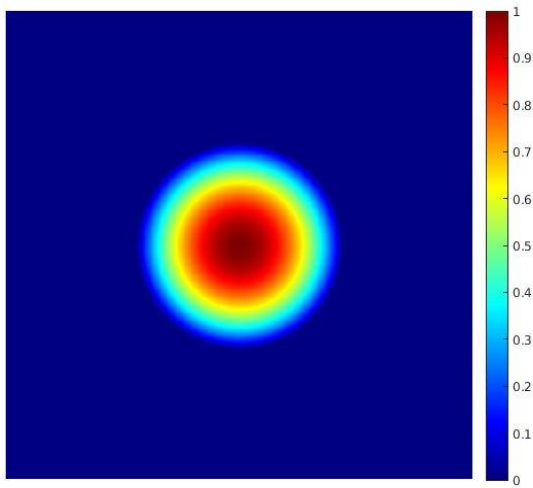
10.freq Response of image to GLPF(40sigma)

11. Barbara GLPF 40sigma:

12. GLPF 80 sigma:

13. Freq response of GLPF 80sigma

14. Barbara GLPF 80sigma:

The LPF smoothens the output compared to the original image because the higher freq component are not present
1. Comment Ideal LPF : The ringing artifacts are more in case of the lpf40response compared to lpf80response because more freq components are present

2. Comment on response of gaussian lpf : The ringing artifact are not present the output is smoothened Gausslpf40 output is more smoother than gausslpf80output.
3. Compared to IdealLPF the ringing artifacts are not visible in GaussLPF.