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function out = Filter_wall(img)

LineInterval = 50;

DarkLevel = 4;

H = size(img,1);

w = size(img,2);

out=img;

LineNum = floor(H/LineInterval);

for k=1:LineNum

    center=randn(1,w);

    center=(center-min(min(center)))/max(max(center));

    Mask=zeros(10,w);

    for i=1:10

        Mask(i,:)=center.*exp(-2*abs(i-5.5));

    end

    Mask=(Mask-min(min(Mask)))/(max(max(Mask))-min(min(Mask)));

    Mask=(1-Mask);

    Mask=(Mask)/(DarkLevel*max(max(Mask))+1-1/DarkLevel);

    P=out(k*LineInterval-9:k*LineInterval,:,:);

    P=im2double(reshape(P,[10,w,3]));

    out(k*LineInterval-9:k*LineInterval,:,:)=im2uint8(P.*Mask);

end

end

```

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