## 1 Original Picture



 $1280{\times}720$ 

## 2 a



When local work group is 16\*16, we have the performance is: 525.895593 MPixels/s, 16.828659 GBit/s, 102.405478 GFlop/s.

When local work group is 32\*32, we have the performance is: 375.877739 MPixels/s, 12.028088 GBit/s, 73.193121 GFlop/s. Increased local work group results in decrease of performance.

## 3 b

The picture is blurred 100, 200, 300 times.



