

**How much detail can we actually see in a print?**

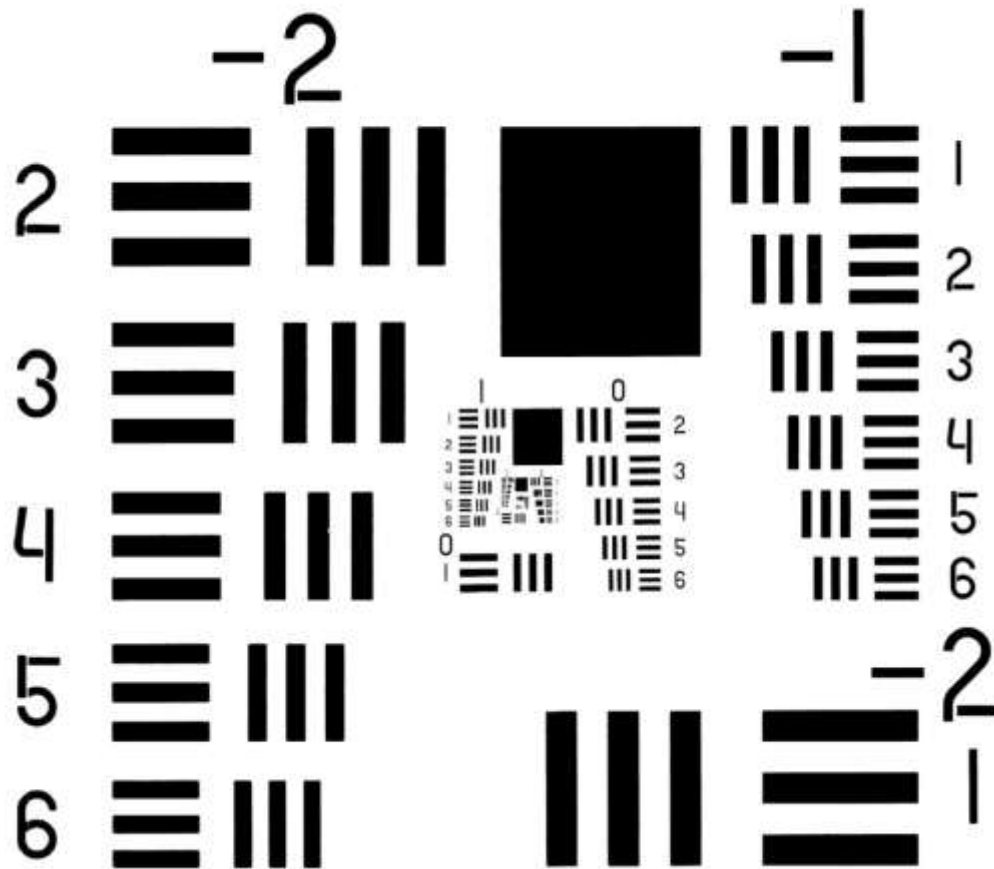
**An important determinant of the  
maximum size of print that will look good**

# USAF 1951 target - viewed by several people

Line pairs per mm depend on Group# and Item in smallest visible pair

$$\text{LPMM} = 2^{[G\# + (\text{Item}-1)/6]}$$

## RESOLVING POWER TEST TARGET



Viewed at arm's length, as one would do in a gallery.

Viewed up close with best possible perception of detail.

# Example data

Person	Gallery – G/#	Gallery mm	Close up – G/#	Close up mm
DW – 1994	1-2	<b>0.22mm</b>	3-2	<b>0.06mm</b>
DW – 2013	1-2	<b>0.22mm</b>	3-2	<b>0.06mm</b>
DW – reading glasses	1-3	<b>0.20mm</b>		
MS – new glasses	1-4	<b>0.18mm</b>	3-1	<b>0.06mm</b>
VS	1-3	<b>0.20mm</b>	2-3	<b>0.11mm</b>
KB	1-1	<b>0.25mm</b>		
PC	1-2	<b>0.22mm</b>	2-1	<b>0.12mm</b>
AM	1-2	<b>0.22mm</b>	1-6	<b>0.14</b>

**Print same size 13" x 20" at five different dpi  
Can people tell the difference? Biltmore estate, Asheville NC**

**200 dpi is 4000 pixels  
250 dpi is 5000 pixels**



**Original image has 5616 pixels**

## Macro shots show clear differences

At gallery viewing distance, some people cannot see the difference between 180, 200 and 250 dpi.

250 dpi is 0.1mm per dot.  
If people can see only 0.2mm things, they cannot see better than 125 dpi.

Would need to view at very close range to see finer details.

