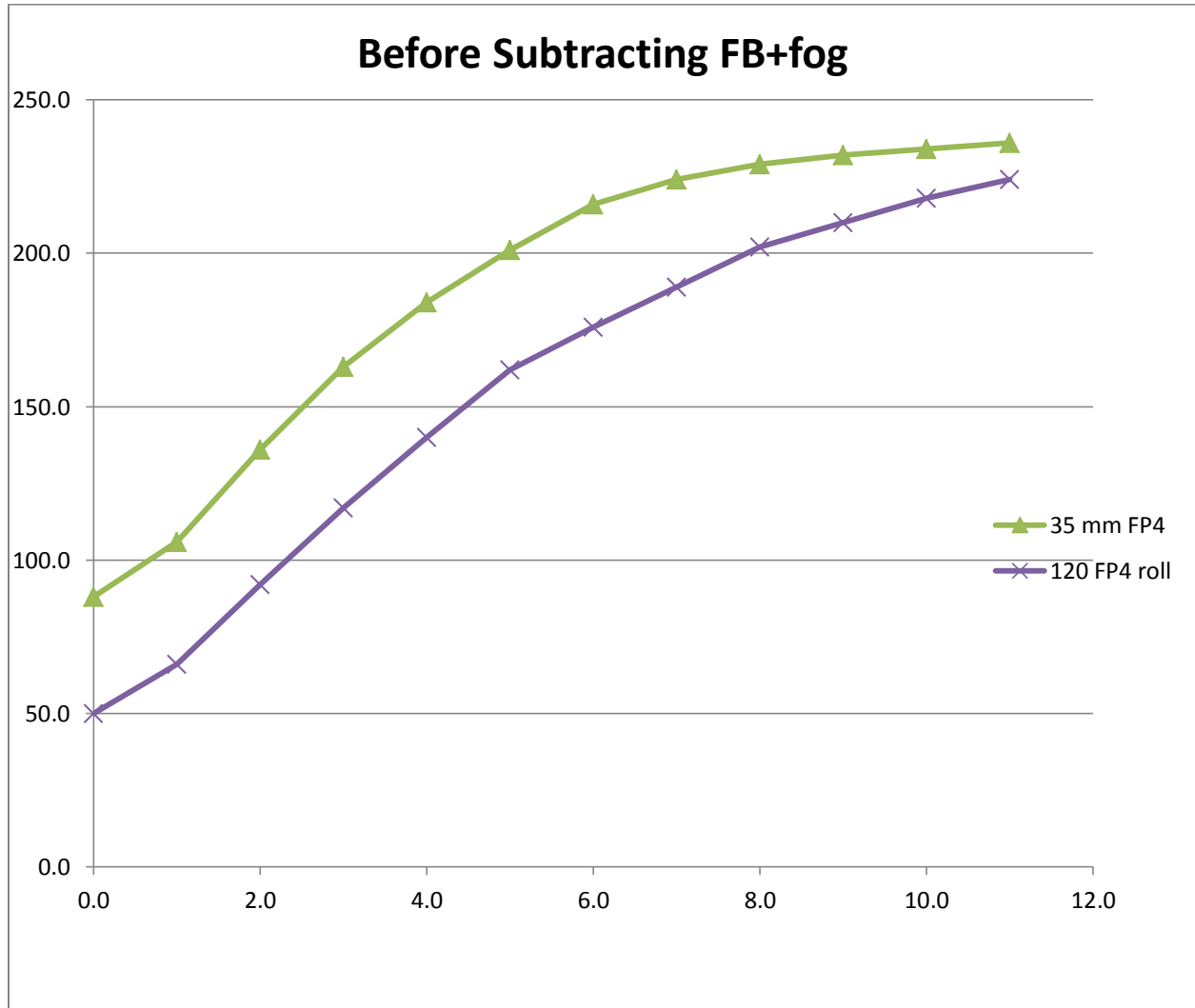


B&W Tonal Distribution – 35mm vs. 120 roll

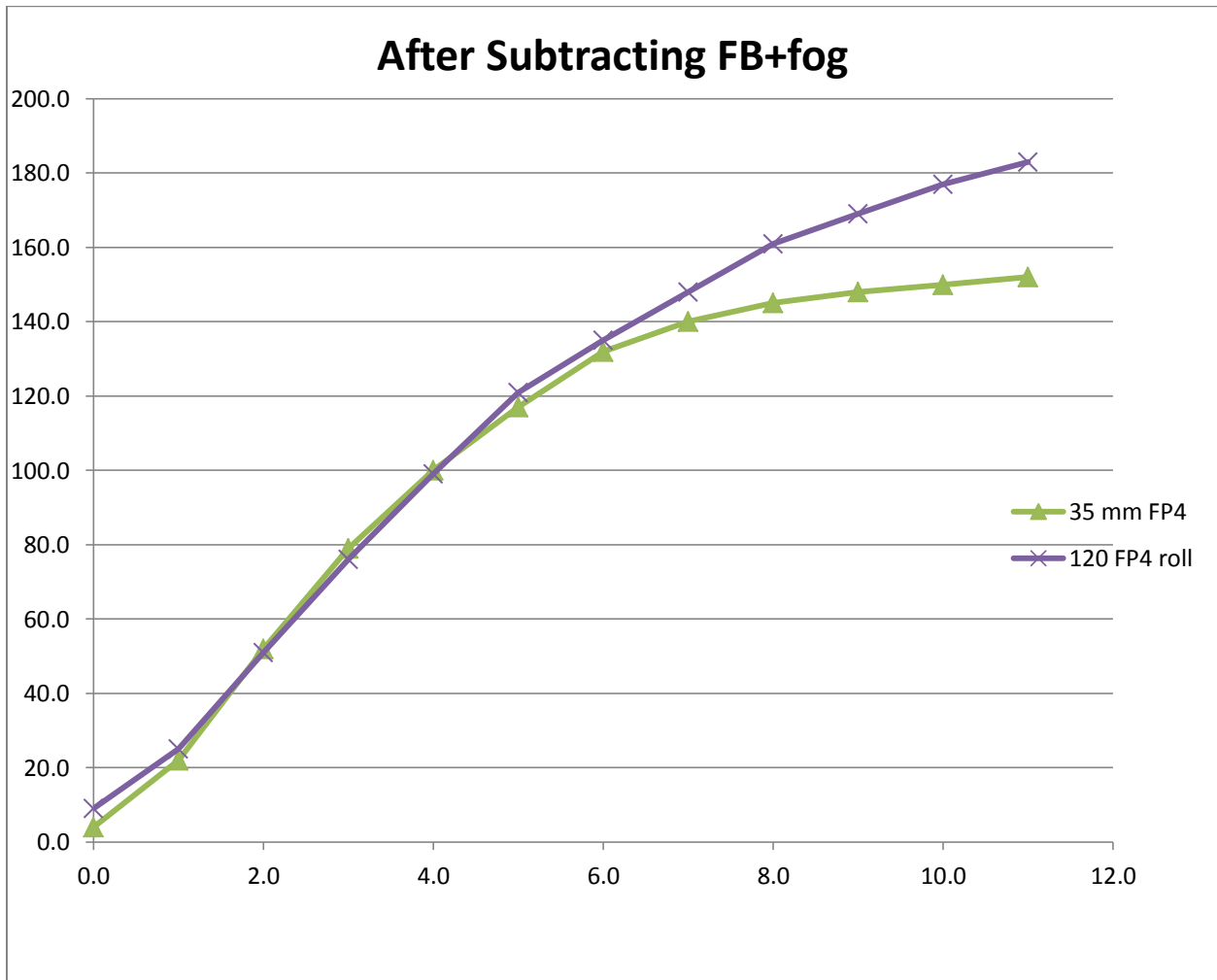
Here is an illustration of the effect of FB+fog on the characteristic curves.

The first graph shows FP4+ before subtracting the FB+fog which is twice as high for 35mm as it is for 120 roll film. Both curves seem to be approaching some form of maximum density as the exposure increases.



This tonal distribution is typical of most 35mm and 120 roll film.

After subtracting FB+fog, the distribution of tones is clearly different - similar contrast through the mid-tones but lower contrast in the highlights for 35mm.



This is why 35mm and 120 roll film need to be considered separately. The same developer concentration and time will perform differently mainly because of the difference in FB+fog. The same concentration will use about twice as much developer in the larger tank for almost (not quite) the same total image area.

You may have heard that a roll of 35mm film, four 4x5 images or one 8x10 image all have about the same image area. Its close, but there is a difference:

| | H | W | Count | Sq mm | Sq in |
|--------|-----|-----|-------|--------|-------|
| 135-36 | 24 | 36 | 36 | 31,104 | 48.2* |
| 120 | 57 | 57 | 12 | 38,988 | 60.4 |
| 4x5 | 96 | 120 | 4 | 46,080 | 71.4 |
| 8x10 | 191 | 241 | 1 | 46,031 | 71.3 |

* plus about 4 square inches of exposed leader