

## Field of View and Panorama tables (Canon Powershot A70)

### Description

These tables are intended to be used in conjunction with a panoramic head for panoramic photography. They tell you the fields of view for various focal-length lenses, and how far you should turn your pano head between shots in order to achieve the desired frame overlap.

This set of tables is calculated based on the 3.96mm × 5.27mm sensor of the Canon Powershot A70. They can also be used for any other camera that has the same zoom steps and uses a similar 1/2.7" Sony CCD; this would include the Powershot A60 and A40.

This document contains the same table in two sizes - full size below and a pocket size version over the page.

### Instructions

Select your chosen focal length in the left-hand column. Look across the row for the approximate frame overlap desired (generally between 10% and 40%). Then read the required rotational increment off from the top of the column.

Example: suppose you're using the camera in the portrait position to shoot a horizontal panorama. This means you're interested in the vertical field of view (VFOV) so you need to look at the upper half of the table.

Imagine you're at the widest zoom step, a focal length of 5.4mm. Read across the 5.4mm row for a reasonable frame overlap - say 25%. From the top of the column you can see that you will need to rotate the camera 30° between shots, and you'll need to shoot 12 frames to make a complete 360° panorama.

### Field of View and Panorama Calculations (Canon Powershot A70)

Frame overlap vs. incremental angle per frame												
Incremental angle per frame		8°	10°	12°	15°	18°	20°	24°	30°	36°	40°	45°
Frames per 360°		45	36	30	24	20	18	15	12	10	9	8
Vertical Field of View												
Focal length	VFOV											
5.4 mm	40.2°	80%	75%	70%	63%	55%	50%	40%	25%	11%	1%	
6.6 mm	33.4°	76%	70%	64%	55%	46%	40%	28%	10%			
7.8 mm	28.5°	72%	65%	58%	47%	37%	30%	16%				
9.4 mm	23.8°	66%	58%	49%	37%	24%	16%					
11.3 mm	19.9°	60%	50%	40%	24%	9%						
13.4 mm	16.8°	52%	40%	29%	11%							
16.2 mm	13.9°	43%	28%	14%								
Horizontal Field of View												
Focal length	HFOV											
5.4 mm	52.1°	85%	81%	77%	71%	65%	62%	54%	42%	31%	23%	14%
6.6 mm	43.6°	82%	77%	72%	66%	59%	54%	45%	31%	17%	8%	
7.8 mm	37.4°	79%	73%	68%	60%	52%	46%	36%	20%	4%		
9.4 mm	31.3°	74%	68%	62%	52%	43%	36%	23%	4%			
11.3 mm	26.3°	70%	62%	54%	43%	31%	24%	9%				
13.4 mm	22.3°	64%	55%	46%	33%	19%	10%					
16.2 mm	18.5°	57%	46%	35%	19%	3%						

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