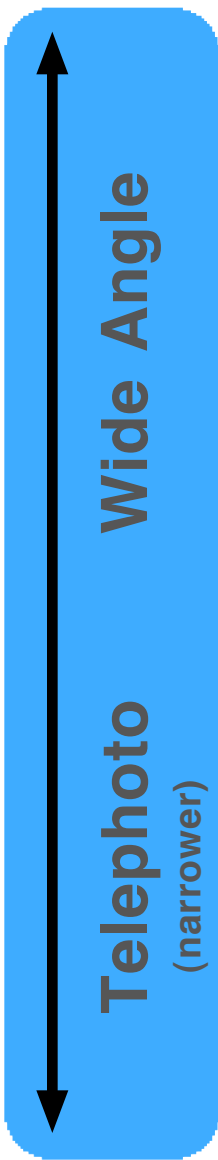


## Lens Field of View Chart for 1/3" CCD Video Cameras

\*Beware of many online lens calculators which produce inaccurate angle measures for these focal lengths. Also, most 1/4" CCD cameras produce a significantly narrower field of view with the same focal length lens.  
 \*\*Due to the physical nature of lens optics, the numbers listed below should be considered accurate to within +/- 3° and therefore a few feet / meters as well. They are intended as approximate guidelines to help select the appropriate lens, while each camera in fact has its own unique field of view with each specific lens. In addition, C- and CS-mount lenses typically deliver a slightly narrower field of view than our comparable board lenses.  
 \*\*\*Lenses wider than roughly 5mm produce "artificially" wider fields of view than more telephoto lenses. In order to do so, the video image is slightly curved at the edges of the screen. While this artificial distortion is nominal for focal lengths between 4.3 and 3.6mm, curvature increases with wider angle lenses.



Lens Focal Length	Camera's Viewing Angle			Distance between video camera and video subject area											
				5' (1.5m) away		10' (3.0m) away		15' (4.6m) away		25' (7.6m) away		50' (15.2m) away		100' (30.5m) away	
mm	Horiz.°	Vert.°	Diag.°	H area	V area	H area	V area	H area	V area	H area	V area	H area	V area	H area	V area
1.78	136°	102°	170°	24.8' (7.6m)	18.6' (5.7m)	49.6' (15.1m)	37.2' (11.3m)	74.4' (22.7m)	55.8' (17.0m)	124.0' (37.8m)	93.0' (28.4m)	248' (75.6m)	186' (56.7m)	496' (151.2m)	372' (113.4m)
2.10	128°	96°	160°	20.5' (6.2m)	15.4' (4.7m)	41.0' (12.5m)	30.8' (9.4m)	61.5' (18.8m)	46.2' (14.1m)	102.5' (31.3m)	77.0' (23.5m)	205' (62.5m)	154' (47m)	410' (125m)	308' (93.9m)
2.45	120°	90°	150°	17.3' (5.3m)	13.0' (4m)	34.6' (10.5m)	26.0' (7.9m)	51.9' (15.8m)	39.0' (11.9m)	86.5' (26.4m)	65.0' (19.8m)	173' (52.7m)	130' (39.6m)	346' (105.5m)	260' (79.3m)
2.80	109°	82°	136°	14.0' (4.3m)	10.5' (3.2m)	28.0' (8.5m)	21.0' (6.4m)	42.0' (12.8)	31.5' (9.6m)	70.0' (21.3m)	52.5' (16m)	140' (42.7m)	105' (32m)	280' (85.4m)	210' (64m)
2.97	104°	78°	130°	12.3' (3.8m)	9.6' (2.9m)	24.6' (7.5m)	19.2' (5.9m)	36.9' (11.3m)	28.8' (8.8m)	61.5' (18.8m)	48.0' (14.6m)	123' (37.5m)	96' (29.3m)	246' (75m)	192' (58.5m)
3.60	74°	56°	92°	7.5' (2.3m)	5.7' (1.7m)	15.0' (4.6m)	11.4' (3.5m)	22.5' (6.9m)	17.1' (5.2m)	37.5' (11.4m)	28.5' (8.7m)	75' (22.9m)	57' (17.4m)	150' (45.7m)	114' (34.8m)
3.70	72°	54°	90°	7.3' (2.2m)	5.5' (1.7m)	14.6' (4.5m)	11.0' (3.4m)	21.9' (6.7m)	16.5' (5m)	36.5' (11.1m)	27.5' (8.4m)	73' (22.3m)	55' (16.8m)	146' (44.5m)	110' (33.5m)
4.0	67°	50°	83°	6.6' (2m)	5.0' (1.5m)	13.2' (4m)	10.0' (3m)	19.8' (6m)	15.0' (4.6m)	33.0' (10.1m)	25.0' (7.6m)	66' (20.1m)	50' (15.2m)	132' (40.2m)	100' (30.5m)
4.30	63°	47°	78°	6.1' (1.9m)	4.6' (1.4m)	12.2' (3.7m)	9.2' (2.8m)	18.3' (5.6m)	13.8' (4.2m)	30.5' (9.3m)	23.0' (7m)	61' (18.6m)	46' (14m)	122' (37.2m)	92' (28m)
5.0	50°	38°	64°	4.7' (1.4m)	3.5' (1.1m)	9.4' (2.9m)	7.0' (2.1m)	14.1' (4.3m)	10.5' (3.2m)	23.5' (7.2m)	17.5' (5.3m)	47' (14.3m)	35' (10.7m)	94' (28.7m)	70' (21.3m)
6.0	42°	32°	53°	3.8' (1.2m)	2.9' (0.9m)	7.6' (2.3m)	5.8' (1.8m)	11.4' (3.5m)	8.7' (2.7m)	19.0' (5.8m)	14.5' (4.4m)	38' (11.6m)	29' (8.8m)	76' (23.2m)	58' (17.7m)
8.0	32°	24°	40°	2.9' (0.9m)	2.2' (0.7m)	5.8' (1.8m)	4.4' (1.3m)	8.7' (2.7m)	6.6' (2m)	14.5' (4.4m)	11.0' (3.4m)	29' (8.8m)	22' (6.7m)	58' (17.7m)	44' (13.4m)
12.0	22°	16°	28°	1.9' (0.6m)	1.5' (0.5m)	3.8' (1.2m)	2.8' (0.9m)	5.7' (1.7m)	4.5' (1.4m)	9.5' (2.9m)	7.5' (2.3m)	19' (5.8m)	15' (4.6m)	38' (11.6m)	28' (8.5m)
16.0	16°	12°	21°	1.4' (0.4m)	1.1' (0.3m)	2.8' (0.9m)	2.2' (0.7m)	4.2' (1.3m)	3.3' (1m)	7.0' (2.1m)	5.5' (1.7m)	14' (4.3m)	11' (3.4m)	28' (8.5m)	22' (6.7m)
25.0	11°	8.4°	14°	1.0' (0.3m)	0.7' (0.2m)	2.0' (0.6m)	1.4' (0.4m)	3.0' (0.9m)	2.1' (0.6m)	5.0' (1.5m)	3.5' (1.1m)	10.0' (3m)	7.0' (2.1m)	20.0' (6.1m)	14.0' (4.3m)
50.0	5.5°	4.2°	7°	0.4' (0.1m)	0.3' (0.1m)	0.8' (0.2m)	0.6' (0.2m)	1.2' (0.4m)	0.9' (0.3m)	2.0' (0.6m)	1.5' (0.5m)	4.0' (1.2m)	3.0' (0.9m)	8.0' (2.4m)	6.0' (1.8m)