

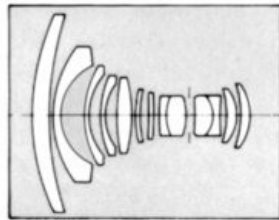
TAMRON

Model 51B

High Speed
Ultra-Wide
Angle

17mm F/3.5

High Speed Ultra-Wide Angle



Tamron SP 17mm F/3.5 Models 51B and 151B: A very good ultra wide angle lens with excellent sharpness and contrast across the film plane, except in the extreme corners at wider apertures. Performance is slightly to moderately soft towards the corners wide open at F/3.5, improves at F/4, is very good by F/5.6, and is excellent between F/8 to F/16. The early version (model 51B) of this lens had built-in filters for black and white photography and thus are highly sought after items. The later version (model 151B) features a cosmetic redesign and discarded the built-in filters as a cost savings measure. Distortion is well controlled (about 1%) except that the this distortion is non-linear and varies from a very slight pincushion to a very slight barrel from about 40% off-axis to about 70% off-axis. Yet distortion along all four edges of the film plane is almost non-existent. The only real advantage which a better OEM lens might possess is better control of non-linear distortion.

Notably, this lens has almost non-existent lateral color! Just a touch of blue fringing is visible towards the corners at maximum aperture, which rapidly disappears as the lens is stopped down. All other aberrations are fairly well controlled at F/5.6 and are tightly controlled by F/8 or F/11. If you plan on doing architectural photography where even slight non-linear distortion is unacceptable, then you will have to opt for the best of the equivalent and more expensive OEM lenses. On the other hand, this lens is an excellent and less expensive optical performer for general purpose ultra-wide angle photography. Optical performance is a bit below that of the similar Nikon lens, is similar to the Olympus Zuiko lens, yet is better than the similar Minolta lens. Note that the Zuiko lens, while extremely compact, has excessive light falloff. The Tamron's optical performance places it squarely in the middle of the pack of the similar OEM lenses of the era. See comparison tests below.

Lens Specifications:

Lens Model	51B
Focal Length	17mm
Aperture Range	f/3.5 — 22, AE
Angle of View	104°
Optical Construction (Groups / Elements)	10 / 12
Min. Focus from Film Plane	9.8" (0.25m)
Macro Mag. Ratio	—
Filter Size	Built-in (normal, 81B, 80B, Y2)
Diameter	2.8" (70mm)
Length at Infinity in. (mm) w/Nikon mount	1.7" (43mm) [1.9" (47.5mm)]
Weight	9.5 oz. (270g)
Lens Hood	Push-on type #20FH (optional extra).
Accessory	Hood accepts 82mm filters.

Tamron SP 17mm F/3.5	
PERFORMANCE	
Modern Photo's as Tested Standard	
Focal length: ±5% (16.15-17.85mm)	17.75mm
Aperture: ±5% (f/3.33-3.68)	f/3.56
Distortion: (±4.0%) less than 1% (pincush.)	
Light falloff: at f/5.6 +1 stop from theoretical limit (0-3.67 stops)	1.25 stops

Minolta Rokkor 17mm F/4	
PERFORMANCE	
Modern Photo's as Tested Standard	
Focal length: ±5% (16.15-17.85mm)	17.17mm
Aperture: ±5% (f/3.8-4.2)	f/3.9
Distortion: (±4.0%) less than 1% (barrel)	
Light falloff: at f/5.6 +1 stop from theoretical limit (3.63 stops)	1.75 stops

Tamron SP 17mm F/3.5				
F/no.	RESOLUTION at 1:48 magnification		CONTRAST (30 lines/mm)	
	Center Lines/mm	Corner Lines/mm	Center %	Corner %
3.5	60	38	48	31
4	67	38	50	40
5.6	54	43	64	49
8	54	54	66	57
11	54	54	64	56
16	67	48	56	51
22	54	38	43	42

Minolta Rokkor 17mm F/4				
F/no.	RESOLUTION at 1:47 magnification		CONTRAST (30 lines/mm)	
	Center Lines/mm	Corner Lines/mm	Center %	Corner %
4	47	30	60	30
5.6	53	33	60	26
8	53	33	60	30
11	53	37	58	33
16	53	37	52	34
22	47	33	42	24

Nikkor 18mm F/3.5	
PERFORMANCE	
Modern Photo's as Tested Standard	
Focal length: ±5% (17.10-18.90mm)	18.82mm
Aperture: ±5% (f/3.33-3.68)	f/3.47
Distortion: (±4.0%) less than 1% (barrel)	
Light falloff: at f/5.6 +1 stop from theoretical limit (0-4.0 stops)	1.5 stops

Zuiko 18mm F/3.5	
PERFORMANCE	
Modern Photo's as Tested Standard	
Focal length: ±5% (17.10-18.90mm)	18.76mm
Aperture: ±5% (f/3.33-3.68)	f/3.51
Distortion: (±4.0%) less than 1% (pincush.)	
Light falloff: at f/5.6 +1 stop from theoretical limit (0-4.0 stops)	3.4 stops

Nikkor 18mm F/3.5				
F/no.	RESOLUTION at 1:48 magnification		CONTRAST (30 lines/mm)	
	Center Lines/mm	Corner Lines/mm	Center %	Corner %
3.5	61	30	68	41
4	61	34	72	41
5.6	68	38	73	56
8	68	43	74	71
11	61	43	64	72
16	54	34	60	65
22	48	34	46	57

Zuiko 18mm F/3.5				
F/no.	RESOLUTION at 1:49 magnification		CONTRAST (30 lines/mm)	
	Center Lines/mm	Corner Lines/mm	Center %	Corner %
3.5	55	44	57	40
5.6	62	44	67	41
8	55	49	72	48
11	55	44	74	49
16	55	44	66	50