

# Resolv4K Zoom Field of View Matrix

## Resolv4K Zoom Field of View Matrix (mm)

Lens Attachment	Rear Adapter Mag		0.6875X	1X	1.375X	2X	Resolve Limit (µm)	Depth of Field (mm)
	Ideal Camera Format		2/3"	1"	4/3"	32mm (APS)		
	Pixel Resolution (µm)		2.24 - 5.47	3.26 - 7.95	4.48 - 10.93	6.51 - 15.90		
	W.D. (mm)	Format	Low-High	Low-High	Low-High	Low-High		
0.25X 0.008 - 0.024 NA 1-81201	359.5	Mag.	0.10X - 0.77X	0.16X - 1.13X	0.22X - 1.55X	0.32X - 2.25X	40.85 - 14.13	7.41 - 0.89
		1/2" Sensor	72.73 - 10.34	50.00 - 7.11	36.36 - 5.17	25.00 - 3.56		
		2/3" Sensor	100.00 - 14.22	68.75 - 9.78	50.00 - 7.11	34.38 - 5.17		
		1" Sensor	-	100.00 - 14.22	72.73 - 10.34	50.00 - 7.11		
		4/3" Sensor	-	-	100.00 - 14.22	68.75 - 9.78		
		32mm	-	-	-	100.00 - 14.22		
0.5X 0.016 - 0.048 NA 1-81202	173	Mag.	0.22X - 1.55X	0.32X - 2.25X	0.44X - 3.09X	0.64X - 4.50X	20.43 - 7.06	1.85 - 0.22
		1/2" Sensor	36.36 - 5.17	25.00 - 3.56	18.18 - 2.59	12.50 - 1.78		
		2/3" Sensor	50.00 - 7.11	34.38 - 4.89	25.00 - 3.56	17.19 - 2.44		
		1" Sensor	-	50.00 - 7.11	36.36 - 5.17	25.00 - 3.56		
		4/3" Sensor	-	-	50.00 - 7.11	34.38 - 4.89		
		32mm	-	-	-	50.00 - 7.11		
0.75X 0.025 - 0.071 NA 1-81203	110	Mag.	0.33X - 2.32X	0.48X - 3.38X	0.66X - 4.64X	0.96X - 6.75X	13.62 - 4.71	0.82 - 0.10
		1/2" Sensor	24.24 - 3.45	16.67 - 2.37	12.12 - 1.72	8.33 - 1.19		
		2/3" Sensor	33.33 - 4.74	22.92 - 3.26	16.67 - 2.37	11.46 - 1.63		
		1" Sensor	-	33.33 - 4.74	24.24 - 3.45	16.67 - 2.37		
		4/3" Sensor	-	-	33.33 - 4.74	22.94 - 3.26		
		32mm	-	-	-	33.33 - 4.74		
1.0X 0.033 - 0.095 NA 1-81204	90	Mag.	0.44X - 3.09X	0.64X - 4.50X	0.88X - 6.19X	1.28X - 9.00X	10.21 - 3.53	0.46 - 0.055
		1/2" Sensor	18.18 - 2.59	12.50 - 1.78	9.09 - 1.29	6.25 - 0.89		
		2/3" Sensor	25.00 - 3.56	17.19 - 2.44	12.50 - 1.78	8.59 - 1.22		
		1" Sensor	-	25.00 - 3.56	18.18 - 2.59	12.50 - 1.78		
		4/3" Sensor	-	-	25.00 - 3.56	17.19 - 2.44		
		32mm	-	-	-	25.00 - 3.56		
1.25X 0.041 - 0.119 NA 1-81205	72	Mag.	0.55X - 3.87X	0.80X - 5.63X	1.10X - 7.73X	1.60X - 11.25X	8.17 - 2.83	0.30 - 0.035
		1/2" Sensor	14.55 - 2.07	10.00 - 1.42	7.27 - 1.03	5.00 - 0.71		
		2/3" Sensor	20.00 - 2.84	13.75 - 1.96	10.00 - 1.42	6.88 - 0.98		
		1" Sensor	-	20.00 - 2.84	14.55 - 2.07	10.00 - 1.42		
		4/3" Sensor	-	-	20.00 - 2.84	13.75 - 1.96		
		32mm	-	-	-	20.00 - 2.84		
1.5X 0.049 - 0.142 NA 1-81206	46.5	Mag.	0.66X - 4.64X	0.96X - 6.75X	1.32X - 9.28X	1.92X - 13.50X	6.81 - 2.35	0.206 - 0.025
		1/2" Sensor	12.12 - 1.72	8.33 - 1.19	6.06 - 0.86	4.17 - 0.59		
		2/3" Sensor	16.67 - 2.37	11.46 - 1.63	8.33 - 1.19	5.73 - 0.81		
		1" Sensor	-	16.67 - 2.37	12.12 - 1.72	8.33 - 1.19		
		4/3" Sensor	-	-	16.67 - 2.37	11.46 - 1.63		
		32mm	-	-	-	16.67 - 2.37		
2.0X 0.066 - 0.190 NA 1-81207	32.3	Mag.	0.88X - 6.19X	1.28X - 9.00X	1.76X - 12.38X	2.56X - 18.00X	5.11 - 1.77	0.116 - 0.014
		1/2" Sensor	9.09 - 1.29	6.25 - 0.89	4.55 - 0.65	3.13 - 0.44		
		2/3" Sensor	12.50 - 1.78	8.59 - 1.22	6.25 - 0.89	4.30 - 0.61		
		1" Sensor	-	12.50 - 1.78	9.09 - 1.29	6.25 - 0.89		
		4/3" Sensor	-	-	12.50 - 1.78	8.59 - 1.22		
		32mm	-	-	-	12.50 - 1.78		

The above fields of view are measured diagonally in millimeters (Horizontal = Diagonal x 0.8 and vertical = Diagonal x 0.6) on a 4:3 aspect ratio sensor.

# Resolv4K UltraZoom with Navitar HR Objectives

Resolv4K UltraZoom Field of View Matrix (mm)

Navitar Objective Lens	Rear Adapter Mag		0.6875X	1X	1.375X	2X		
	Ideal Camera Format		2/3"	1"	4/3"	32mm (APS)		
	Pixel Resolution (µm)		2.24 - 5.47	3.26 - 7.95	4.48 - 10.93	6.51 - 15.90	Resolve Limit (µm)	Depth of Field (µm)
	W.D. (mm)	Format	Low-High	Low-High	Low-High	Low-High	Low-High	Low-High
4X 0.066 - 0.190 NA 1-55341	20	Mag.	0.88X - 6.19X	1.28X - 9.00X	1.76X - 13.38X	2.56X - 18.00X	5.11 - 1.77	116 - 14
		1/2" Sensor	8.10 - 1.29	6.25 - 0.89	4.55 - 0.65	3.13 - 0.44		
		2/3" Sensor	8.10 - 1.78	8.10 - 1.22	6.25 - 0.89	4.30 - 0.61		
		1" Sensor	-	8.10 - 1.78	8.10 - 1.29	6.25 - 0.89		
		4/3" Sensor	-	-	8.10 - 1.78	8.10 - 1.22		
		32mm	-	-	-	8.10 - 1.78		
6X 0.099 - 0.285 1-55343	25	Mag.	1.32X - 9.28X	1.92X - 13.50X	2.64X - 18.56X	3.84X - 27.00X	3.40 - 1.18	51 - 6.2
		1/2" Sensor	6.06 - 0.86	4.17 - 0.59	3.03 - 0.43	2.08 - 0.30		
		2/3" Sensor	6.25 - 1.19	5.73 - 0.81	4.17 - 0.59	2.86 - 0.41		
		1" Sensor	-	6.25 - 1.19	6.06 - 0.86	4.17 - 0.59		
		4/3" Sensor	-	-	6.25 - 1.19	5.73 - 0.81		
		32mm	-	-	-	6.25 - 1.19		
10X 0.164 - 0.400 NA 1-55227	10	Mag.	2.20X - 15.47X	3.20X - 22.50X	4.40X - 30.94X	6.40X - 45.00X	2.04 - 0.84	19 - 3.1
		1/2" Sensor	3.20 - 0.52	2.50 - 0.36	1.82 - 0.26	1.25 - 0.18		
		2/3" Sensor	3.20 - 0.71	3.20 - 0.49	2.50 - 0.36	1.72 - 0.24		
		1" Sensor	-	3.20 - 0.71	3.20 - 0.52	2.50 - 0.36		
		4/3" Sensor	-	-	3.20 - 0.71	3.20 - 0.49		
		32mm	-	-	-	3.20 - 0.71		
20X 0.329 - 0.530 NA	10	Mag.	4.40X - 30.94X	6.40X - 45.00X	8.80X - 61.88X	12.80X - 90.00X	1.02 - 0.63	4.6 - 1.8
		1/2" Sensor	1.25 - 0.26	1.25 - 0.18	0.91 - 0.13	0.63 - 0.09		
		2/3" Sensor	1.25 - 0.36	1.25 - 0.24	1.25 - 0.18	0.86 - 0.12		
		1" Sensor	-	1.25 - 0.36	1.25 - 0.26	1.25 - 0.18		
		4/3" Sensor	-	-	1.25 - 0.36	1.25 - 0.24		
		32mm	-	-	-	1.25 - 0.36		

# Resolv4K Fixed

## Resolv4K Fixed Field of View Matrix (in mm at nominal W.D.)

Lens Attachment	Camera Adapter				0.5X	0.6875X	1X	1.375X	2X
	Pixel Resolution (µm)				1.34	1.85	2.68	3.69	5.37
	W.D. (mm)	DOF (mm)	Res. Limit (µm)	Format	Diagonal (FOV)				
0.25X 0.025 NA 1-81201	359.5	0.88	13.42	Mag.	0.20X	0.275X	0.40X	0.55X	0.80X
				1/2" Sensor	40.00	29.09	20.00	14.55	10.00
				2/3" Sensor	55.00	40.00	27.50	20.00	13.75
				1" Sensor	-	-	40.00	29.09	20.00
				4/3" Sensor	-	-	-	40.00	27.50
				APS	-	-	-	-	40.00
Full (44mm)	-	-	-	-	-				
0.5X 0.05 NA 1-81202	173	0.22	6.71	Mag.	0.40X	0.55X	0.80X	1.10X	1.60X
				1/2" Sensor	20.00	14.55	10.00	7.27	5.00
				2/3" Sensor	27.50	20.00	13.75	10.00	6.88
				1" Sensor	-	-	20.00	14.55	10.00
				4/3" Sensor	-	-	-	20.00	13.75
				APS	-	-	-	-	20.00
Full (44mm)	-	-	-	-	-				
0.75X 0.075 NA 1-81203	110	0.0978	4.47	Mag.	0.60X	0.825X	1.20X	1.65X	2.40X
				1/2" Sensor	13.33	9.70	6.67	4.85	3.33
				2/3" Sensor	18.33	13.33	9.17	6.67	4.58
				1" Sensor	-	-	13.33	9.70	6.67
				4/3" Sensor	-	-	-	13.33	9.17
				APS	-	-	-	-	13.33
Full (44mm)	-	-	-	-	-				
1.0X 0.1 NA 1-81204	90	0.055	3.36	Mag.	0.80X	1.10X	1.60X	2.20X	3.20X
				1/2" Sensor	10.00	7.27	5.00	3.64	2.50
				2/3" Sensor	13.75	10.00	6.88	5.00	3.44
				1" Sensor	-	-	10.00	7.27	5.00
				4/3" Sensor	-	-	-	10.00	6.88
				APS	-	-	-	-	10.00
Full (44mm)	-	-	-	-	-				
1.25X 0.125 NA 1-81205	72	0.0352	2.68	Mag.	1.00X	1.375X	2.00X	2.750X	4.00X
				1/2" Sensor	8.00	5.82	4.00	2.91	2.00
				2/3" Sensor	11.00	8.00	5.50	4.00	2.75
				1" Sensor	-	-	8.00	5.82	4.00
				4/3" Sensor	-	-	-	8.00	5.50
				APS	-	-	-	-	8.00
Full (44mm)	-	-	-	-	-				
1.5X 0.15 NA 1-81206	46.5	0.0244	2.24	Mag.	1.20X	1.650X	2.40X	3.30X	4.80X
				1/2" Sensor	6.67	4.85	3.33	2.42	1.67
				2/3" Sensor	9.17	6.67	4.58	3.33	2.29
				1" Sensor	-	-	6.67	4.85	3.33
				4/3" Sensor	-	-	-	6.67	4.58
				APS	-	-	-	-	6.67
Full (44mm)	-	-	-	-	-				
2X 0.20 NA 1-81207	32.3	0.0138	1.68	Mag.	1.60X	2.20X	3.20X	4.40X	6.40X
				1/2" Sensor	5.00	3.64	2.50	1.82	1.25
				2/3" Sensor	6.88	5.00	3.44	2.50	1.72
				1" Sensor	-	-	5.00	3.64	2.50
				4/3" Sensor	-	-	-	5.00	3.44
				APS	-	-	-	-	5.00
Full (44mm)	-	-	-	-	-				

For 4:3 aspect ratio sensor, Horizontal = Diagonal x 0.8, Vertical = Diagonal x 0.6  
 APS - 32mm image circle, Full - 44mm image circle