






RED ONE Lens to Picture Plane Comparison Chart

Simply put, to fully appreciate what RED has to offer, always shoot 4k as a master and sub-sample your required resolutions from there, using the suite of tools.

RED 4K Full Optical Advantage




Super 35 equivalent

Diag "	RES	H	V	Units		H	V	Units			
1.18	FULL SENSOR	4900	x	2580	Pixel			Full Camera Aperture			
		1.04	x	0.55	Inch			0.98	x	0.735	Inch
		26.46	x	13.93	MM			24.89	x	18.67	MM
1.02	4K 1.66 (16:9) not available	4096	x	2467	Pixel			1.66 Full Center Extraction			
		0.87	x	0.52	Inch			0.945	x	0.534	Inch
		22.12	x	13.32	MM			24.00	x	13.56	MM
1.00	4K 1.77 (16:9)	4096	x	2304	Pixel			1.77 Full Center Extraction			
		0.87	x	0.49	Inch			0.945	x	0.534	Inch
		22.12	x	12.44	MM			24.00	x	13.56	MM
0.99	4K 1.85 (16:9) post crop 1.77:1	4096	x	2214	Pixel			1.85 Full Center Extraction			
		0.87	x	0.47	Inch			0.945	x	0.511	Inch
		22.12	x	11.96	MM			24.00	x	12.98	MM
0.97	4K 2:1	4096	x	2048	Pixel			2:1 Super 35 Flat			
		0.87	x	0.44	Inch			0.945	x	0.472	Inch
		22.12	x	11.06	MM			24.00	x	11.99	MM
0.95	*4K 2.35:1 post crop 2:1	4096	x	1743	Pixel			2.35:1 Super 35 Flat ANA extraction			
		0.87	x	0.37	Inch			0.945	x	0.402	Inch
		22.12	x	9.41	MM			24.00	x	10.21	MM
0.77	4K ANA 1.2:1	2764	x	2304	Pixel			2.40 Squeezed Anamorphic Negative			
		0.59	x	0.49	Inch			0.864	x	0.732	Inch
		14.93	x	12.44	MM			21.95	x	18.59	MM




Resolutions lower than 4K result in cropping, or windowing of the full lensed frame. In other words, a scene shot 4k, using a 28mm focal length, would show the same horizontal and vertical fields of view as framing the same scene shooting 2k, using a 55 mm lens. Without the optical effects of distance and parallax.

***4K 2.35:1 - Not a selectable resolution, rather cropped in post. This is a flat extraction, similar to Super 35mm, 2.35:1 method. This is not an anamorphic option, but can be squeezed for the release.**

3K Horizontal

Diag "	RES	H	V	Units		
0.75	3K 1.77 (16:9)	3072	x	1728	Pixel	
		0.65	x	0.37	Inch	
		16.59	x	9.3313	MM	
0.73	3K 2:1	3072	x	1536	Pixel	
		0.65	x	0.33	Inch	
		16.59	x	8.2945	MM	
0.57	3K ANA 1.2:1	2074	x	1728	Pixel	
		0.44	x	0.37	Inch	
		11.20	x	9.3313	MM	

2K Horizontal

Diag "	RES	H	V	Units		
0.50	2K 1.77 (16:9)	2048	x	1152	Pixel	
		0.44	x	0.24	Inch	
		11.06	x	6.2208	MM	
0.49	2K 2:1	2048	x	1024	Pixel	
		0.44	x	0.22	Inch	
		11.06	x	5.5296	MM	
0.37	2K ANA 1.2:1	1282	x	1152	Pixel	
		0.27	x	0.24	Inch	
		6.92	x	6.2208	MM	

Legend

