Cinematography Cheat Sheet 1: Cameras & Lenses

Rules of thumb

Lens choice is an emotional choice: wide lenses put the viewer *inside* the space, long lenses make the viewer an *observer* of it. Focal lengths below assume a Super 35 sensor unless noted; on full frame, multiply by roughly 1.4 to get the same framing.

- **Wide = involvement, energy, distortion.** Space feels bigger, movement feels faster, faces bend when close.
- **Normal (35–50mm S35) = honesty.** Closest to human perception; the "invisible" lens.
- **Long = compression, isolation, voyeurism.** Background stacks up behind the subject; movement toward camera feels slow.
- **Shallow focus = subjectivity.** The world falls away; we're in the character's head.
- **Deep focus = objectivity.** Everything readable; the audience chooses where to look.
- **Bigger sensor = more dimensional, dreamier.** Smaller sensor or film gauge = grittier, more immediate.
- **Pick a lens "palette" per character or act** and stay disciplined. Changing lens philosophy mid-film should mean something.

Focal length guide

Ranges are Super 35 (full-frame equivalent in brackets). Emotional reads are craft convention, not law.

Range (S35)	Category	What it does to space & faces	Emotional read	Best for	Watch out for	Film references
8–14mm (12–20mm FF)	Ultra-wide	Huge depth exaggeration; bends lines at edges; noses balloon in close-up	Unease, mania, paranoia, awe	Cramped interiors, POV madness, skate/action, establishing vastness	Distorted faces read as comic or grotesque	*The Favourite*, *Fear and Loathing in Las Vegas*
16–24mm (24–35mm FF)	Wide	Expands rooms, exaggerates speed toward/away from lens	Immersion, energy, vulnerability when close	Handheld action, Steadicam follows, environmental portraits, one-takers	Keep horizon level; edge stretch on faces	*The Revenant*, *Birdman*; Deakins favours ~27mm for wides
25–35mm (35–50mm FF)	Wide-normal	Slight depth, natural but present	Intimate-but-observant, documentary truth	Dialogue in context, walk-and-talks, verité drama	Can feel "TV" if lit flat	*Children of Men*, much of *The Bear*
40–50mm (55–75mm FF)	Normal / portrait	Faces render true; background soft but readable	Neutral, honest, classical	Medium shots, singles, "invisible" coverage	Can feel bland without strong composition	Ozu shot nearly everything on 50mm
65–100mm (85–135mm FF)	Short tele	Flattering faces, compressed backgrounds, strong separation	Intimacy, romance, emotional focus	Close-ups, interviews, beauty/product, reactions	Requires distance; focus pulls get harder	Most modern drama close-ups
135–300mm (200–400mm FF)	Telephoto	Heavy compression; background walls in behind subject; heat-haze shimmer	Voyeurism, isolation, inevitability, tension	Surveillance POV, crowds, chase toward camera, sunsets/moons, westerns	Camera shake magnified; needs solid support	*Heat* (LA freeway), Kurosawa battle scenes

Range (S35)	Category	What it does to space & faces	Emotional read	Best for	Watch out for	Film references
300mm+	Super-tele	Near-flat image; people seem stacked	Detached, predatory, “being watched”	Wildlife, sports, giant-moon shots, paparazzi feel	Atmosphere softens image; very shallow focus	*The Conversation*, nature docs

Specialty lens types

Anamorphic lenses squeeze the image horizontally (usually 2x), producing a 2.39:1 frame, horizontal streak flares and oval bokeh.

Lens type	Signature look	Use it for	Best practice	References
Spherical prime	Clean, round bokeh, natural geometry	Default drama, VFX plates, anything needing precision	Build a matched set (18/25/32/50/75/100) for consistent colour and contrast	Most features
Anamorphic (2x)	Ultra-wide 2.39:1, blue/ horizontal flares, oval bokeh, edge softness, bending at wides	Epic scale, romance, sci-fi, “Hollywood” feel	A 50mm anamorphic frames like a 25mm spherical but focuses like a 50mm — wide view, shallow focus	*Blade Runner*, *La La Land*, J.J. Abrams flares
Anamorphic (1.3x/1.5x)	Milder anamorphic traits on 16:9 sensors	Commercials and music videos wanting “scope” texture without heavy crop	Good fit for full-frame mirrorless	Modern ads
Zoom (cine)	Flexible framing; slightly lower speed	Docs, run-and-gun, live events, 70s-style zoom-ins	Use the zoom *as a move* deliberately, not as a lazy reframe	*Barry Lyndon* (slow zoom-outs)
Vintage / detuned	Low contrast, glow, flares, warm halation, character	Period pieces, dreams, nostalgia, music videos	Test flare at angles to the light; embrace imperfection	Cooke Speed Panchros, Super Baltars
Macro	Extreme close focus, life-size reproduction, razor-thin focus	Product hero shots, insects, eyes, texture inserts, title sequences	Add light (stops get lost); use focus rail or motion control	Food ads, *Requiem for a Dream* inserts
Probe / snorkel (e.g. Laowa 24mm)	Long thin barrel, tiny front element, bug’s-eye view	Travel through miniatures, food, between objects, tabletop	Light heavily; perfect for impossible push-ins	Food commercials, tabletop
Fisheye	180° view, extreme barrel distortion	Skate, hallucination, peephole, comedy	Use sparingly; it reads as a gimmick fast	*Requiem for a Dream*, Hype Williams videos
Tilt-shift	Selective focus plane; miniature effect	Making real cities look like toys, dreamlike slices of focus	Tilt for focus plane, shift for keystone correction	Miniature-effect timelapses
Lensbaby / swing lens	Sweet spot of focus with swirly blur around it	Drunk, drugged, memory, disorientation	Move the sweet spot during the shot for unease	*The Diving Bell and the Butterfly*
Split diopter	Two focus planes in one frame (near and far both sharp)	Two characters at different depths both in focus — tension, unspoken connection	Hide the split line along a vertical edge in the set	De Palma, *Reservoir Dogs*, *Jaws*
Periscope / relay	Camera at ground level or inside tight spaces	Low ground-skimming moves, model work	Pair with motion control	Car-commercial ground glides

Aperture, depth of field & lens character

Depth of field is set by aperture, subject distance and focal length together. Sensor size changes it too, because bigger sensors need longer lenses for the same framing.

Setting	Look	Use for
T1.3–T2 (wide open)	Paper-thin focus, creamy background	Romance, dreams, isolation, night exteriors, subjective POV
T2.8–T4	Subject sharp, background soft but legible	Standard drama coverage — the workhorse range
T5.6–T11	Deep focus	*Citizen Kane*-style staging, comedy (gags need to read), horror (threat visible in background), ensemble frames

Lens character traits to call out:

- **Bokeh** — shape and quality of out-of-focus areas. Round = spherical; oval = anamorphic; swirly = vintage/Petzval.
- **Flare** — veiling glare or streaks from light hitting the lens. Warm and organic for nostalgia; blue streaks for sci-fi.
- **Focus breathing** — framing shifts during a focus pull. Avoided on cine lenses; sometimes used deliberately for a vintage feel.
- **Contrast & sharpness** — modern sharp glass reads clinical/digital; softer vintage glass reads filmic and flattering on skin.
- **Rack focus** — shifting focus between subjects mid-shot. Directs attention, reveals threats, links characters.
- **Diffusion filters** (Black Pro-Mist, Glimmerglass) — soften highlights and skin; 70s/80s glow; dream or romance.

Formats & camera aesthetics

Super 35 is roughly 21.9×18.6mm and most cinema lenses are built for it; Super 16 is about 7.4×12.5mm; 65mm is about 3.5x Super 35.

Format / aesthetic	Look & feel	Ideal for	Best practice
IMAX (15/70 film or IMAX-certified digital)	Towering, near-square frame (1.43:1 or 1.90:1), overwhelming detail	Spectacle, space, aerials, set-pieces	Compose for the tall frame; let the image breathe — few fast cuts
65mm / large format digital (Alexa 65, LF)	Dimensional, shallow focus at normal stops	Epic drama, landscapes, intimate prestige drama	Longer lenses for same framing; use focus falloff as a storytelling layer
Full frame digital	Modern, smooth, shallow focus easy	Commercials, prestige TV, music videos	Stop down slightly in wides so the world isn’t mush
Super 35 digital	The neutral cinema standard	Most features and series	Biggest lens choice of any format
35mm film	Fine grain, rich colour, smooth highlight roll-off	Classic cinema, period, prestige	Embrace halation and grain; overexpose negative slightly for density
Super 16 film	Visible grain, softer, deeper focus, raw	Indie, docu-drama, 70s/90s nostalgia, horror	Longer lenses than you’d expect; lean into grain
Super 8 / 8mm	Heavy grain, gate weave, light leaks, flicker	Memories, flashbacks, home movies	Shoot short bursts; handheld; frame edges visible
VHS / camcorder	Smeared colour, scanlines, tracking errors, timestamp	Found footage, 80s/90s nostalgia, analog horror	Use auto-exposure pumping and zoom rocker
CCTV / security cam	High angle, fisheye, low frame rate, timestamp, monochrome	Surveillance, horror, true crime	Locked-off, high corner; no operator energy

Format / aesthetic	Look & feel	Ideal for	Best practice
Smartphone / vertical	Deep focus, sharp, handheld, 9:16	Social-native, found footage, intimacy	Embrace the vertical frame; stack subjects vertically
Body cam / GoPro	Ultra-wide, shaky, fisheye, immersive	Action POV, sports, found-footage horror	Mount to body or object for impossible angles
Black & white	Graphic, timeless, emphasises shape and shadow	Noir, period, psychological drama	Light for contrast, not colour; think in tonal separation
High frame rate / slow-mo (60–1000fps)	Stretches time, reveals detail	Impact moments, liquids, product hero shots	Light heavily; plan where the speed ramp lands

Camera bodies & their reputations

The ARRI Alexa 35 is today's default prestige camera: nearly half of SXSW 2026 features used it, with Sony Venice systems second, and it appeared on 27 projects at Cannes 2026. Naming the camera in an AI prompt nudges toward that look.

Camera	Sensor	Reputation / look	Typical use
ARRI Alexa 35	Super 35	Filmic skin tones, gentle highlight roll-off, the "prestige" look	Indie and festival features, prestige TV
ARRI Alexa Mini / Mini LF	S35 / Large format	Industry workhorse; LF adds dimensionality	Features, commercials, gimbals and drones
ARRI Alexa 65	65mm	Epic, immersive, huge detail	Blockbusters, landscape epics
Sony Venice 2 / Rialto	Full frame	Clean, rich colour, strong low light; Rialto splits head off for tight spaces	Features, car rigs, cockpits
RED V-Raptor / Komodo	VistaVision / S35	Sharp, high-res, punchy, "digital" edge	Action, VFX plates, commercials, crash cams
Blackmagic URSA Cine / Pocket	Various	Affordable, film-like grade latitude	Indies, B-cams, music videos
Canon C-series	S35 / FF	Pleasing skin, reliable autofocus	Docs, corporate, run-and-gun
Sony FX3 / a7S / mirrorless	Full frame	Tiny, low light, modern clean look	Crash cams, guerrilla, docs (*The Creator*)
IMAX film / IMAX-certified digital	15/70 film	Maximum scale	Nolan, spectacle set-pieces
Film: ARRI 416 (16mm), Arricam / Panavision (35mm)	Film	Organic grain, halation, nostalgia	Prestige, period, music videos
iPhone / GoPro / DJI Osmo	Small	Deep focus, immediate, social-native	POV, found footage, crash shots

Scene-type matchmaker

Pick the row closest to the intent, then adjust.

Scene type	Lens (S35)	Aperture	Format / camera feel	Why
Epic establishing / landscape	14–24mm, or 300mm+ for compression	T5.6–T8	Large format, IMAX, anamorphic	Scale and detail; long lens stacks mountains/cities

Scene type	Lens (S35)	Aperture	Format / camera feel	Why
Intimate dialogue / romance	50–85mm	T1.4–T2.8	Full frame or anamorphic, diffusion filter	Flattering faces, background melts away
Tense interrogation	75–135mm, tightening over the scene	T2–T2.8	Super 35, hard light	Compression traps the subject; lens gets longer as pressure rises
Horror — dread	18–25mm close, or long lens from hiding	T4–T5.6 (deep)	16mm grain, desaturated	Wide shows empty space where something could be; deep focus lets threat sit in background
Horror — jump / chaos	12–18mm handheld	T2.8	Body cam, VHS, found footage	Distortion and shake = panic
Action / fight	18–35mm handheld or gimbal; 200mm+ for chases toward camera	T2.8–T4	RED / Alexa Mini, high shutter	Wide shows choreography; long compresses traffic and speed
Comedy	25–40mm	T4–T5.6	Clean digital, bright	Deep focus so gags and reactions read; wide-lens close-ups for absurdity
Product / commercial hero	100mm macro, probe lens	T4–T8	Full frame, high frame rate, motion control	Texture, detail, slow-mo liquid and crumbs
Dream / memory / flashback	Vintage or Lensbaby, 35–50mm	Wide open	Super 8, 16mm, halation, soft filters	Imperfection signals unreality
Sci-fi / alien	Anamorphic 40–75mm; ultra-wide for scale	T2.8	Large format, blue flares	Scope frame + flares = genre language
Documentary / mockumentary	24–70mm zoom	T2.8–T4	Canon / Sony FX, handheld, snap zooms	Reactive framing feels real
Surveillance / being watched	200mm+ through foliage or glass	Wide open	CCTV, long lens, low frame rate	Voyeurism and threat
Psychological breakdown	8–14mm close on face, or fisheye	T2	Handheld, Dutch angle	Distortion = mind warping
Western / standoff	24mm wides cutting to 150mm+ eye close-ups	T4	Anamorphic, 35mm film	Leone’s wide-to-extreme-close rhythm

Translating this into AI image & video prompts

- **Stack: format → camera → lens → aperture → character.** e.g. “shot on ARRI Alexa 65, 40mm anamorphic, T2, oval bokeh, blue horizontal flares, subtle film grain.”
- **Say the effect, not just the number.** “85mm” plus “compressed background, creamy bokeh” is more reliable than the number alone.
- **Film stocks are strong style cues:** Kodak Vision3 500T (tungsten night, cyan shadows), Portra (warm skin), Ektachrome (saturated), 16mm grain, Super 8 gate weave.
- **Keep a lens lock per project** in your production notes (e.g. “all close-ups 85mm T2, all wides 24mm T5.6”) and paste the same phrasing into every prompt.
- **Distortion words help:** “wide-angle distortion close to face”, “fisheye”, “tilt-shift miniature effect”, “split diopter, both foreground and background in focus.”

Sources

Wolfcrow (focal length); FilmDaft (focal length); PremiumBeat (emotions with lenses); ASC Practical Optics 3 (anamorphic); StudioBinder (anamorphic); ProVideo Coalition (large format look); 4K Shooters (sensor size); filmmaking.net (16 vs Super 16); YMCinema SXSW 2026 and Cannes 2026 camera breakdowns; Morphic (focal length glossary).