

FREE MINI-GUIDE

NORTHERN LIGHTS THE STARTER KIT

— The essentials for your first night out



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Théophane Kiefer

PHOTOGRAPHER IN LOVE WITH THE ARCTIC WINTER

AN EXCERPT FROM "NORTHERN LIGHTS · LAPLAND"

BEFORE YOU START

THIS MINI-GUIDE IS A GIFT

If you're reading these lines, chances are you dream of seeing the northern lights — or you're about to go looking for them. Good news: you're in the right place.

I spent six winter months above the Arctic Circle, across Norway, Sweden and Finland, photographing the polar nights. Out of them came a complete 84-page guide. What you're holding here is its concentrate: **the four things that will make the difference on your very first night out.**

You'll find the truth about what you *really* see with the naked eye, a starting camera setting that works, the six moves to know on a smartphone, and the one forecasting rule that matters when deciding whether to head out tonight.

Every photo in these pages was taken during the 2024-2025 Arctic winter, in Sweden and Norway. None was generated or composited: these are the nights I actually saw.

Enjoy — and dress warm.

— Théophane · @theophanekfr

This mini-guide is a freely shareable excerpt from the guide “Northern Lights · Lapland — Understanding, forecasting and photographing them”, available on Amazon (currently in French). Photographs © Théophane Kiefer.



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THE TRUTH ABOUT WHAT YOU'RE GOING TO SEE

Something has bugged me for years: the “guaranteed aurora” tours and the spectacular photos that make you believe the sky looks like a screensaver every single night. The reality is more subtle — and more beautiful, if you know what to expect.

Most of the time, an aurora is a **pale streak you'd mistake for a cloud**. Camera sensors — smartphones included — are far more sensitive to light than the human retina: they embellish reality, systematically. The photo almost always shows more than the eye.

But make no mistake: a powerful aurora is perfectly visible to the naked eye. It's bright, it moves, it dances — the first time, it hits you in the gut. And that same greyish streak can, within minutes, unfurl into curtains of color. With auroras, nothing is ever a given: that's the whole problem, and the whole charm.

AN AURORA HAS TWO STATES



The ordinary state — on screen, a green glow; to the naked eye, almost nothing.



The storm state — this time, your eyes see it too.

Most nights, the aurora only fully exists on the screen: the sensor reveals colors the eye can barely guess at. And then there are the high-activity nights, when the sky truly catches fire. **Knowing these two states exist means you won't be disappointed by the ordinary — and you'll know the extraordinary is real.**

WHAT TO REMEMBER

- No one can **guarantee** you the show — not an agency, not an app.
- A pale glow that looks like a cloud? **Photograph it** to check: it's often how a great night begins.
- Patience and eyes on the sky will always beat your phone screen.

THE STARTING SETTINGS THAT WORK

There is no universal setting — everything depends on the aurora's intensity, which can change three times in ten minutes. But there is a reliable starting point, to dial in *at home, in the warm*, before you head out:

M mode	Everything manual, RAW format, autofocus off.
f/2.8	Aperture at your lens's maximum — you never stop down at night.
ISO 3200	Don't fear the noise: a noisy, sharp photo beats a clean, blurry one every time.
5 – 10 s	On a tripod, with a 2-second self-timer so you don't shake the camera.
Focus	Manual, on a bright star, zoomed ×10 in live view — never on the lens's “infinity” hard stop.

Then adjust as you review your images — and remember the only rule that matters:

THE GOLDEN RULE

- **The faster the aurora moves, the shorter the exposure.** Intuition pushes you the other way — and that's what produces those shapeless green blurs.
- A calm aurora can take 10–15 s. A dancing aurora demands 1–4 s.

THE SIX MOVES BEFORE YOU TAP

No camera? No reason to miss out: recent phones do remarkably well, even handheld — their night modes stack dozens of short frames.

- 1 **Night mode on**, flash off.
- 2 **Focus set to infinity**, exposure locked (long-press the screen).
- 3 **3-second self-timer** — don't touch the screen as the shot fires.
- 4 **Lens wiped clean**: fog and fingerprints put a halo around every star.
- 5 **Screen brightness at minimum**: battery saved, eyes adjusted to the dark.
- 6 **Two hands, elbows tucked** against your chest — and hold still until the countdown ends.



Taken on a phone — no camera involved. (iPhone 15 Pro Max)

One last reflex: the cold drains batteries in an instant — keep the phone against your body between shots.

STOP CHASING KP 7

The Kp is the number everyone watches — and the most misunderstood. It doesn't measure how beautiful the show will be: it indicates **how far down in latitude the aurora reaches**.

If you're in Lapland, in Tromsø or Abisko, you're already *under* the auroral oval: a Kp of 2 or 3 is plenty to have an aurora right above your head. Some of my finest nights happened at Kp 3. It's in Oslo or Scotland that you need a Kp 6 or 7 — not up there.

And the real enemy isn't solar activity. In six months in the Arctic, I never missed an aurora for lack of activity: I missed them all **because of clouds**.

WHAT TO REMEMBER

- Under the auroral oval, **a Kp 3 with clear skies beats a Kp 7 under clouds, every single time.**
- Weather comes before space weather: head out as soon as the sky is clear, whatever the numbers say.
- Forecasts get it wrong both ways — “dead” nights that catch fire, “historic” nights that deliver nothing.

Which indicators to watch instead of the Kp, which sites and apps to install, how to read the solar wind: that's chapter 3 of the full guide.



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With a little luck, this is the show that awaits you: a bold, colorful aurora, plainly visible to the naked eye. Those nights are real — I hope you get to live one.

GOING FURTHER

THIS MINI-GUIDE IS AN EXCERPT

The full guide — 84 pages, some forty photographs, 14 chapters — holds everything that didn't fit here:

- The detailed **settings table** by aurora intensity, from pale veil to solar storm
- **Bz, Hp30, the solar wind**: the indicators that really matter, and my typical-day routine
- **Focusing step by step**, the histogram, white balance, timelapse
- Gearing up against extreme cold, **safety**, scouting your spot
- The smartphone's **Pro mode**, editing without overdoing it
- The **condensation trap** that can destroy a lens — and how to avoid it
- The **13 most common mistakes**

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A question, a picture you'd like to show me? I reply to everyone on Instagram:
[@theophanekfr](https://www.instagram.com/theophanekfr).

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