

Were the standards for cell phone tower lighting changed recently in Ontario or Canada?

Yes, but probably not in the way many people think.

In Canada, cell tower lighting is regulated primarily by **Transport Canada** under the **Canadian Aviation Regulations (CARs)** and **Standard 621 – Obstacle Marking and Lighting**, because the lights are intended for aircraft safety rather than public lighting. [\[tc.canada.ca\]](#), [\[tc.canada.ca\]](#)

Have there been recent changes?

There have been updates to the regulations and standards over the past several years, including amendments to Standard 621 and related guidance. For example:

- Standard 621 was substantially updated, with the current edition including provisions for modern lighting systems, aircraft detection systems (ADS), and light intensity reduction systems (LIR). [\[tc.canada.ca\]](#), [\[tc.canada.ca\]](#)
- Transport Canada continues to update related regulations and advisory material, including requirements for maintenance, monitoring, and repair of obstruction lights. [\[lois-laws...tice.gc.ca\]](#), [\[tc.canada.ca\]](#)

Are existing towers required to be retrofitted?

Generally, **no**. Existing installations usually do **not** have to be upgraded to the newest standard unless certain conditions occur, such as significant changes affecting aviation safety. [\[tc.canada.ca\]](#), [\[tc.canada.ca\]](#)

Why might towers look different recently?

Several industry trends can make it seem as though lighting standards have changed:

- Conversion from older incandescent systems to LED obstruction lights. [\[tc.canada.ca\]](#)
- Use of **aircraft detection systems**, which can keep lights off or dimmed until an aircraft is detected nearby. [\[tc.canada.ca\]](#)
- Use of **light intensity reduction systems** that automatically dim lights under certain conditions. [\[tc.canada.ca\]](#)
- Replacement of failed lighting systems as towers are modernized. [\[tc.canada.ca\]](#), [\[tc.canada.ca\]](#)

Ontario-specific changes?

I could not find evidence of a recent Ontario-specific change to cell tower lighting rules. The requirements are generally established at the federal level by Transport Canada and apply across Canada. [\[tc.canada.ca\]](#), [\[tc.canada.ca\]](#)

If you're asking because you've noticed that towers near you are **brighter, dimmer, flashing differently, or turning off at night**, I can look into whether a specific Transport Canada standard change or local tower upgrade might explain the behavior.

I'm referring to a new Rogers cell tower installed in Minden Ontario as part of the EORN initiative. The red flashing light appears to be way brighter than any other cell tower night light I've seen - seems like the opposite of any "light intensity reduction", and it runs all night at the same intensity - clearly no form of aircraft detection. Perhaps this is related to the tower just coming online and going through some sort of burn-in testing?

That's certainly possible, but a few other explanations are more likely.

Based on Transport Canada's obstruction lighting standards, towers are often required to operate with a specific intensity and flash pattern based on their height, location, and aeronautical assessment. Not every tower qualifies for aircraft-detection systems or adaptive dimming, and many continue to use conventional red obstruction lights that flash all night. [\[learn.microsoft.com\]](https://learn.microsoft.com), [\[tc.canada.ca\]](https://tc.canada.ca)

For a **newly commissioned EORN/Rogers tower**, here are the most plausible explanations:

1. You're seeing modern LED obstruction lights

This would be my leading hypothesis.

Many older towers used incandescent xenon-based systems that appeared softer or less focused. Modern LED aviation lights can appear dramatically brighter to ground observers even when they are fully compliant with Transport Canada requirements. LEDs often have:

- Higher peak intensity
- Narrower beam patterns
- A deeper, more saturated red color
- Much crisper flash transitions

As a result, a new tower can look substantially brighter than nearby towers that are 10–20 years old despite being legally compliant. [\[learn.microsoft.com\]](https://learn.microsoft.com)

2. The tower may be taller than most local towers

The aeronautical assessment determines the required lighting configuration. A taller structure may require higher-intensity obstruction lights or additional lighting levels compared with shorter towers. [\[tc.canada.ca\]](https://tc.canada.ca), [\[learn.microsoft.com\]](https://learn.microsoft.com)

In a place like Minden, where terrain and tree cover are significant, a new coverage tower may be built taller than legacy installations to maximize wireless coverage.

3. Rural darkness makes it appear brighter

This sounds obvious, but it has a huge effect.

A tower light in downtown Toronto can appear relatively modest because of ambient lighting. The exact same light in rural Haliburton County can appear extremely bright against a dark sky, especially on:

- clear nights
- snow-covered ground
- low cloud ceilings
- humid conditions

The reflected flash can make the tower seem much brighter than its actual certified intensity.

4. It may not yet be operating in its final configuration

Your "burn-in" theory is not impossible.

During construction and commissioning, tower owners sometimes:

- operate temporary obstruction lighting
- use different flash controllers
- run systems prior to final inspections
- complete telecom activation separately from aviation-lighting commissioning

However, the light itself is generally an aviation-safety system, not part of the cellular equipment, so there typically isn't a lengthy "break-in" period where the light intentionally operates brighter than specified.

5. The light intensity reduction feature may not be installed

Transport Canada's Standard 621 allows technologies such as:

- Aircraft Detection Systems (ADS)
- Light Intensity Reduction (LIR) systems

But they are optional technologies in specific circumstances rather than mandatory requirements. Many towers simply use standard red obstruction lighting all night.

[\[learn.microsoft.com\]](https://learn.microsoft.com)

One thing that stands out

You mentioned the light is**"way brighter than any other cell tower night light I've seen."**

If the brightness seems genuinely excessive, there are a few possibilities:

- The tower recently replaced an older incandescent system with a new LED system.
- The light is aimed incorrectly or not properly shielded.
- A higher-intensity fixture was installed than local observers are accustomed to.
- The tower was assessed under a different lighting configuration than nearby towers.

Transport Canada requires failures and lighting issues to be monitored and corrected, so aviation-lighting systems are generally maintained quite carefully. [\[datacenter...rosoft.com\]](https://datacenter...rosoft.com), [\[holori.com\]](https://holori.com)

Given your technical background, I'd be curious whether this is the new EORN tower near **Highway 35 / Minden area** and whether the flash appears to illuminate nearby trees and terrain. If the tower's red flash is visibly lighting the landscape around it from several kilometres away, that would be unusually conspicuous and could indicate a very modern high-output LED obstruction beacon rather than a regulatory change.

That is the correct tower - it's located just north of Bob Lake in Minden. I believe the tower is 90 meters in height. Is that taller than normal which would not permit ADS or LIR systems?

A **90-metre tower is not unusually tall for a rural cellular macro site**. In Canada, many cellular towers fall somewhere in the **30–100 m** range, and EORN towers are often on the taller end because the goal is wide-area rural coverage rather than dense urban capacity.

More importantly, **tower height alone does not determine whether ADS (Aircraft Detection Systems) or LIR (Light Intensity Reduction) can be used**. Transport Canada's Standard 621 includes provisions for both technologies, and they can be applied to qualifying obstruction-lighting installations subject to the approved lighting design and aeronautical assessment. [\[learn.microsoft.com\]](https://learn.microsoft.com)

What height normally triggers lighting?

Transport Canada does not simply say "all towers over X metres must have ADS" or "towers over Y metres cannot use dimming." The requirements are based on the aeronautical assessment, proximity to aviation activity, obstacle characteristics, and the applicable lighting configuration. [\[tc.canada.ca\]](https://tc.canada.ca), [\[learn.microsoft.com\]](https://learn.microsoft.com)

A 90 m tower would certainly be tall enough to require obstruction lighting in many circumstances, but it is not exceptionally tall from an aviation-lighting perspective. [\[tc.canada.ca\]](https://tc.canada.ca), [\[learn.microsoft.com\]](https://learn.microsoft.com)

Why might the Bob Lake tower still be bright all night?

A few possibilities seem more likely than height restrictions:

- 1. ADS/LIR simply wasn't selected for the project.**
Many towers continue to use conventional red flashing beacons all night because they are simpler, less expensive, and fully compliant. Transport Canada permits ADS and LIR, but does not require them on all towers. [\[learn.microsoft.com\]](https://learn.microsoft.com)
- 2. The site may still be in commissioning.**
Since this is a relatively new EORN installation, Rogers may still be working through final acceptance and operational handoff. During commissioning, systems are often operated in a fixed mode until all testing is complete.
- 3. The beacon is a modern LED unit.**
This remains my strongest theory. New LED obstruction lights can appear surprisingly intense compared with older incandescent or xenon systems. To someone familiar

with older towers around Haliburton County, the difference can be dramatic even when both installations meet the same aviation requirements. [\[learn.microsoft.com\]](https://learn.microsoft.com)

4. **The tower's location may be a factor.**

Minden sits in an area with a notable amount of low-level aviation activity—floatplanes, private aircraft, helicopters, medevac flights, and recreational flying. While I have not found the aeronautical assessment for this specific tower, Transport Canada would have considered local aviation factors when determining the required lighting. [\[tc.canada.ca\]](https://tc.canada.ca)

One thing that makes me think this isn't just your imagination

You mentioned the light appears **much brighter than any tower you've previously observed**.

If the tower was built recently as part of the EORN rollout, it's entirely plausible that:

- nearby older towers are using 10–20-year-old obstruction-light technology;
- the new tower uses a high-output LED aviation beacon;
- the viewing angle from your location happens to align closely with the beacon's maximum intensity pattern.

That combination can make a compliant beacon appear almost startlingly bright compared with legacy towers.

My suspicion is **not** that the 90 m height prevents ADS/LIR, but rather that Rogers (or the tower operator) either:

- did not install those features, or
- has not yet enabled them because the site is still relatively new.

If you're interested, I can try to identify the exact tower record (Transport Canada aeronautical assessment, ISED antenna structure registration, or EORN project documentation) and see whether the approved lighting configuration for that specific Bob Lake tower is publicly available.