



Kaution Korner October 2025

By Gene Rigsby, President of Top Cats Illinois

Can you see the light...??

As fall is upon us, the days are growing shorter. With less daylight to ride in, the chance of needing to ride in the dark or low light conditions is higher. Make sure you are ready if you need to.

Two important factors riding in low light conditions is to see and be seen. Let's review both to "see" (pun intended) what we can do to get good results.

Why Lighting Matters

- **"See and Be Seen":** Visibility is paramount for motorcyclists, who have minimal physical protection.
- **Driver Perception:** Correct lighting improves a driver's ability to accurately judge a motorcycle's speed and distance, allowing for more time to react and avoid collisions.
- **Legal Compliance:** Some lights are required by law. Ensure any added lights are DOT and SAE compliant, as required by law. More on lighting laws below.

See:

Making sure others can see you and more importantly, understand that you are a motorcycle and not a car and about what speed you are moving is extremely important for rider and passenger safety.

There is a link below leading to a very good article about this topic and how choosing the right lighting can help drivers understand your motorcycle's position and approach. Please take a look.

Picking the right headlights can be challenging. There are many different options to choose from based on your preference and overall needs.

When choosing motorcycle lighting, consider these aspects:

- **Light Output & Beam Pattern:** Look for lights that offer sufficient brightness for visibility and have beam patterns suited to your riding style (e.g., spot, hybrid, or wide).
- **Durability & Construction:** Choose lights with robust construction and weatherproof materials to ensure long-lasting performance in various conditions.
- **Power Consumption:** LED lights are energy-efficient, reducing strain on your motorcycle's battery and improving overall longevity.
- **Installation Ease:** Select lights that are compatible with your bike and offer an easy installation process, though consulting a professional or doing your research is recommended.
- **Visibility:** Beyond just brightness, lighting setup should enhance your visibility from all angles, making you more noticeable to other drivers and pedestrians.

And don't forget the front turn signals: Use LED or high bright incandescent lamps for best visibility. Some headlamps even have integrated turn signals.

Safety Tips

- **Make sure to adjust Headlights:** Correctly adjusting your headlights is crucial to ensure your light is directed where you need it and doesn't blind oncoming traffic.

Other forward lighting options to consider are:

Spot Lights:

- **Pros:** Provide a narrow, focused beam perfect for long-distance illumination, ideal for high-speed riding and spotting hazards far down the road.
- **Cons:** Do not offer a wide peripheral view.

Flood Lights:

- **Pros:** Offer a wide beam pattern for excellent peripheral visibility, excellent for off-road riding and city commuting.
- **Cons:** Do not provide the focused, long-range illumination of spot lights.

Daytime Running Lights (DRLs):

- **Pros:** Increase your motorcycle's visibility during the day, significantly reducing crash risk by improving conspicuity.
- **Cons:** Some studies have mixed results on speed perception with DRLs, so it's best to use them in conjunction with other visibility measures.

DOT and SAE Compliant Fog Lamps:

- **Pros:** Specifically designed for low-visibility conditions like dust and fog and may be yellow or amber.
- **Cons:** Not for standard road use; a stamp on the lens indicates compliance.

Be seen:

Of course your forward view is important as you move along on your ride, but making sure others can see you well enough to understand that you are moving, stopping, turning, etc... plays a critical role as well.

- **Taillights:** Located at the rear to make the motorcycle visible to following vehicles and often integrated with turn signals and brake lights.
- **Turn Signals:** Essential for communicating directional changes to other traffic.
- **Auxiliary Lights:** Additional lights mounted on the bike to enhance overall visibility, especially useful for off-road riding or riding in dark conditions.

Safety Tips

- **Proper Placement:** Don't just add more lights; place auxiliary lights strategically to fill in dark spots and create a more comprehensive light coverage.
- **Increase Your Profile:** Using accent or underglow lighting can significantly increase your visibility profile, especially from the side.

Key Considerations When Upgrading

- **Battery Load:** Adding multiple lights (or higher lumen lights) increases electrical load; ensure the motorcycle's charging system (and OEM fusing) can handle it by understanding power draw and potentially using smart controllers to prevent battery drain.
- **Installation:** Properly fuse circuits and use solid-state relays or plug-and-play harnesses for installing multiple lights to prevent damage.
- **Regulations:** Be aware of regulatory restrictions on the design and output capabilities of lights, which can limit factory-installed options. A link to information about local laws is below.

I was nearly run off the road because someone (A**) thought I had my brights on when I simply had bright headlights. Ask me about this sometime and I can tell you more.

The bottom line is, I would not change my headlights to make them dimmer and in fact I am glad that they are seen easily and maybe a little annoying. They get me noticed which is one of the main objectives.

More information about lighting and options:

Night time headlight configuration impacts:

<https://www.sciencedirect.com/science/article/abs/pii/S1369847822001942>

Daytime headlight configuration impacts:

<https://pmc.ncbi.nlm.nih.gov/articles/PMC4771245/>

Suggested lighting products:

<https://www.motorcycle.com/products/best-led-lights-for-motorcycles>

Check local laws:

https://www.eaglelights.com/blogs/news/a-quick-guide-to-motorcycle-led-laws-in-the-us?srsId=AfmBOoohkdKDAW8O97RNHVBEx4kmemI57D_1ef5QyQsZ7p3yvBhAvmqK

<https://blog.customdynamics.com/what-is-dot-sae-compliant-motorcycle-lighting/>

More reading:

<https://pdaroadgear.com/blog/the-importance-of-motorcycle-lighting/>

https://www.revzilla.com/common-tread/the-importance-of-upgrading-your-motorcycle-lighting?srsId=AfmBOoo_eB4vm0iyzTHROsgTXHH5jsZIX6AeaOLsU7yWkMWcEeUOpi7r