

Understanding reptiles:

Lighting and heat:

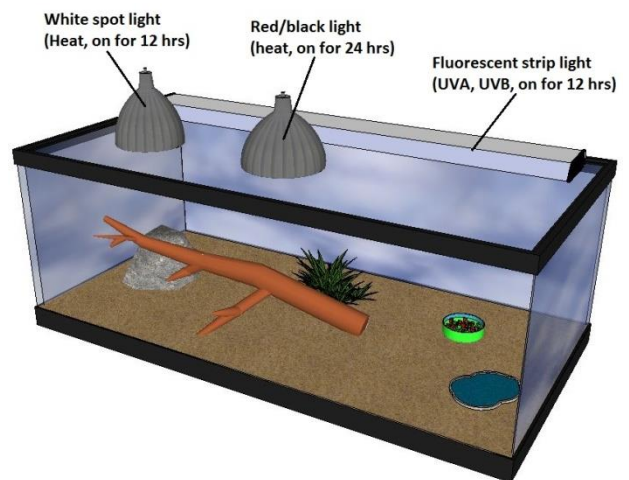
Lighting does more than just show off your great setup. Lighting helps regulate and establish your pet's wake/sleep cycle and their feeding schedule, maintains the reptile's mood and emotional state, provides a vital source of heat and important UV radiation. There are a lot of different options when looking at lights, so we're going to break them down.

First, why is UV so important? Reptiles are no different than us. UV comes in two forms: A and B. UVA is produced by most of the lights that we offer. It is important as it helps regulate mood, inducing normal activities and needs, such as eating. UVB, on the other hand, is essential for stimulating the production of vitamin D3 in their skin. This is vital for the metabolism of calcium; Basking loving reptiles need a higher level of UV than tropical reptiles; keep this in mind when selecting the right bulb.

Know your animal. Know where they come from and the necessary levels of UV for them to thrive in their cage. If you have any questions, as always, consult your reptile veterinarian. Inadequate levels of UV radiation can lead to indigestion, loss of appetite, stomach and mouth rot, blindness, paralysis, metabolic bone disease, and in some cases, death.

There are a few different ways to set up your bulbs for your reptile:

Three light setup: The white spot light is situated on one side of the tank, above a tall basking spot; this lets the reptile regulate their body temperature. When the reptile is cold, they'll move toward the warm end, if they get too warm, they move to the cooler end (this is why a large cage is necessary for many reptiles. In small cages, they can't move far enough away from the heat). UV is provided by a strip light stretching across the back of the tank. Since these two lights recreate the sun, they stay on for only 12 hours.

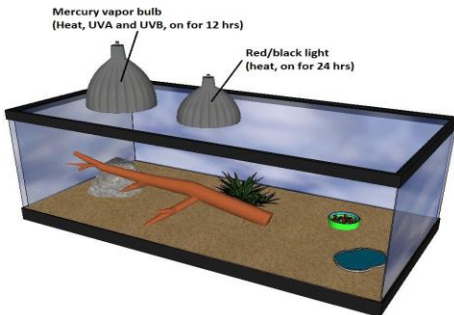


TIP: A plug-in timer is really useful to automate your lighting. Set it to go on at 8 am and off at 8 pm, and you don't have to remember to do it yourself!

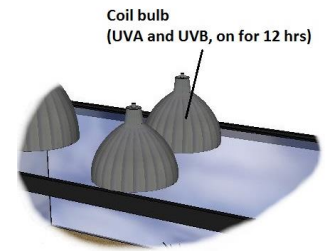
The red/black heat bulb boosts your temperature during the day, and prevents the cage from getting too cold at night. You can use either color. They do not produce a lot of visible light, allowing both the people and the reptiles to sleep.

The phosphorescent powder used in many strip UV lights will fade over time. The decline is gradual, and we often do not even notice the change until we install a new light. To ensure optimal UV output, replace your lights every 6 – 8 months.

Alternate UV setup: This is an alternate 3 light setup. The UV strip light is replaced with a coil UV bulb in a dome. This setup is more appropriate for a cage that is taller, as the coil bulb focuses the UV rays on a more focused spot; the wide strip light spreads the UV rays across the wider cage better.



Two light setup: This setup only uses two lights. The red/black heat lamp is the same as the other setup. This uses a mercury vapor bulb instead of the UV bulb; it produces a hot basking spot in addition to providing UV radiation. Mercury vapor bulbs do cost more to purchase, but, because they don't have a filament like incandescent bulbs, they last a lot longer and do not fade in intensity.



TIP: Get the longest life out of your bulbs by keeping handling to a minimum.

When the filament in a bulb is hot, it is very fragile. Before doing cage maintenance, turn your bulbs off and wait for 15 minutes before moving them. You can hang your lamps from a lamp stand. A lamp stand, like Exo Terra's Light Bracket, not only allows you to easily and gently move your lights, but you can also raise or lower the stand, adjusting your temperature as needed.

There are some great ways to supplement the heat your lights give. A combination of different heat sources is recommended to give your reptile plenty of places to raise his body temperature. Other heat sources include:

Ceramic heaters: These heaters can be used in place of the red/black heat bulbs. They produce no visible light, a lot of heat, and, since they do not use filaments like incandescent bulbs are very durable.



Heating coils: These flexible coils go under the cage, providing an extra source of heat in the cage. They can also be wrapped around cage furniture to give some extra heat where your reptile sits.

Heating pad: Like the coils, these provide an extra source of heat. They can be placed either under the cage or on the back of the cage to provide focused heat. Heating pads are not as drying as a heat lamp and better suited to amphibian cages.

Heat rocks: These were an older concept in heating reptile cages. Although they are still on the market, we do not carry them, as a reptile cannot regulate their temperature. They're either on the rock, and can get too hot, or they're off the rock, and can get too cold.

TIP: Use a thermostat, like R-Zilla's Temperature Controller, to help automate your temperature control. Plug your heating elements in the controller, place the temperature probe, set the temperature to the range you want, and it helps maintain the proper temperature in the cage!

How warm is warm?

This chart provides some basic information on the best temperatures by habitat:

Habitat type	Average Temperature Range	Average basking Temperature	Humidity Level
Desert	65 - 85°	90 - 110°	10 - 30%
Temperate	65 - 85°	90 - 100°	30 - 50%
Tropical	70 - 85°	85 - 95°	50 - 80%
Semi-Aquatic	60 - 75°	80 - 95°	50 - 80%

There are exceptions, though. The crested gecko is a tropical reptile, but it lives in what are called cloud forests. These regions exist at the tops of mountains in tropical rainforests where it is very humid but a lot cooler than it is lower down. *Know your reptile – research online, check out our other care sheets, and stop by to talk with our trained staff, and the best temperature they need to stay healthy.*

The season also plays a vital role. In winter, the amount of sunlight decreases and, even though the temperature stays the same in the cage, this can trigger an artificial hibernation in your reptile. If not prepared properly, a reptile is at risk of starving during the winter months. Our advice is to, when the days start getting shorter, to increase the overall temperatures in your cage by about 10 degrees. This will help keep their metabolism moving and keep them healthy.

What wattage light to use? This is a question we get every day. Our standard answer: “The wattage is not as important as the results you get.” If you keep your house extra cold, you may need a higher wattage. Warmer, sunnier locations may get away with a lower wattage.



TIP: Don't attach a thermometer to the cage. Keep it so that you can move it around. Place it in the basking spot and check the temperature after an hour or so. Move it to the warm side and the cold side and record your temperatures. If you need it warmer, upgrade to a higher watt bulb.

A digital thermometer is highly accurate and the only way to ensure that you are providing enough warmth for your reptile.

Both lighting and heat play a vital role in your reptile's health. If they stay too cool for too long, their metabolism begins to slow down and they can begin to suffer nutritional deficiencies. Providing the lighting and temperature appropriate for your species of reptile is key to keeping them healthy and thriving in your home! Reptiles vary widely in their UV light requirements, but one fact is common to all species: they are all adapted to natural sunlight, and there is no way that you can exactly replicate their natural environment in captivity. However, with the right knowledge and set-up, you can copy it as closely as possible.