

Lights

This page provides information on the types of V-Ray Lights.

Overview

V-Ray for Rhino offers a number of lights essential for a good render. No matter what type the scene is, you can find the appropriate lighting options in the V-Ray toolbar or in the Asset Editor.

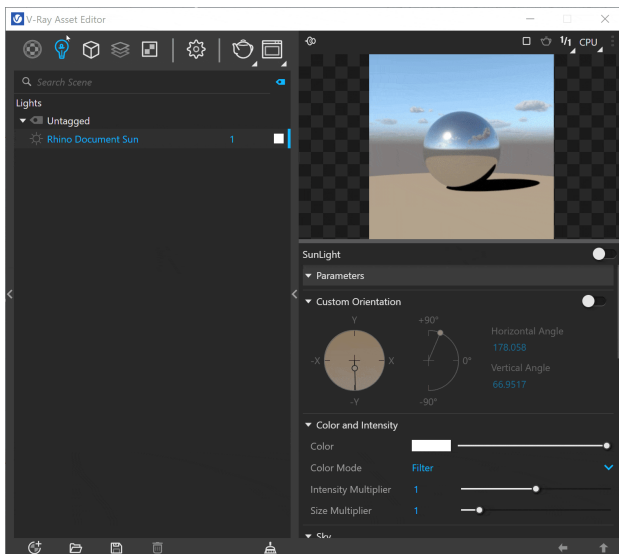
Depending on the scene and the effect you are trying to create with light, you might choose to use only one type of light or any combination of lights.

Below you can find detailed information on creation, application, and UI functionalities of the different V-Ray lights.

UI Paths

||V-Ray Asset Editor|| > **Lights** (right-click)

||V-Ray Asset Editor|| > **Create Asset** (left-click) > **Lights**



||V-Ray Lights Toolbar|| > **V-Ray Lights**



Rhino Menus Ribbon

||V-Ray|| > **Lights**

- Creating a light item from the Asset Editor automatically places it into the viewport with (0, 0, 0) coordinates.
- When changing the **Units** of a given light, its preview is updated accordingly. Changes of the light intensity value are displayed to a certain amount in order for the preview to remain illustrative.
- You can create lights in the Asset Editor from both the Create Asset button (**bottom-left corner**) and the Lights category icon (**top**). If the **Lights** category is empty, left- or right-clicking on the icon prompts you to create a new asset. Otherwise, it selects the category, in which case right-clicking on it opens the creation menu.
- The Asset creation dropdown lists remain active when **Ctrl** key is pressed, allowing the creation of multiple assets in quick succession. The Asset creation dropdown lists can be activated via the **Create Asset** button or the Asset Category icons.

Types of Lights

Rectangle Light

V-Ray Rectangle Light is a planar light source with the shape of a rectangle or of a circular disk. Rectangle lights are useful for simulating man-made light sources, such as lamps, in an interior environment.

Sphere Light

Sphere Light is a V-Ray Light object in the shape of a sphere, casting light outward in all directions.

Spot Light

V-Ray Spot Light is a V-Ray specific light source plugin. Use it to create a physically accurate light that directs a narrow beam of light with falloff.

IES Light

IES lights are designed to realistically simulate the distribution pattern of a light source by loading and using an IES (Illumination Engineering Society) file. An IES profile contains details about the behavior of the light, such as how the light passes through fresnel lenses, its intensity, and its falloff.

Omni Light

V-Ray Omni Light is a V-Ray specific light that can be used to create physically accurate lights. It casts rays in all directions from a single source.

Dome Light

Dome light (also known as Area light) creates light within a dome or spherical shape to create a traditional global illumination setup. This light is frequently used to load HDRI environment images.

Mesh Light

Mesh Light can create light sources that have volume and shape defined by geometry in the scene without the need to use self illuminated objects and global illumination.

SunLight

Sun light is a spherical light source placed at a specific location which simulates the sun in the sky. There is no icon for Sun Light. It is automatically created in the scene and visible in the Lights section of the Asset Editor.

Directional Light

The V-Ray Directional Light is a V-Ray specific light source plugin that can be used to create physically accurate area lights.

V-Ray Light Gen

V-Ray Light Gen offers various lighting options. There are two main categories - Exterior and Interior.

Rhino Light Sync

Rhino and V-Ray Lights have all their common settings synced together. Adjusting any of the Rhino Light properties updates them in the V-Ray Asset Editor's Light list and vice versa.

Notes

- Negative intensity values are not allowed for any of the lights. Since Rhino allows negative light intensity, V-Ray considers those as set to a value of 0.
- V-Ray lights can be instanced by using the `_Array` command or Alt+drag the light object in the Rhino viewport. Exceptions are the V-Ray Dome and Sun Light.
- In V-Ray Next Update 1.1 some of the render elements are rendered differently than before. The Lighting render element now contains all direct diffuse illumination and the GI element contains all indirect diffuse illumination. Similarly, all direct reflections of lights now go to the Specular element and all indirect reflections go to the Reflection element.
- The context options of the Color Slot allow to **Copy** and **Paste** a color from one color slot to another, as well as to **Reset** the color selection to a default value.
- You can reset the Input Number Slider's value to its default value by right-clicking on the slider and selecting the **Reset** context menu option.
- Most numeric V-Ray parameters come with a slider to make fine-tuning easier. Each slider is set to a default range of recommended or commonly used values. If a value above that range is used the slider adapts by increasing its range accordingly (2x the input value) to maintain usability. If a value below the current slider range is used, the slider again adjusts its range by shrinking it to twice the amount of the input value.
- The slider range does not indicate the parameter's total minimum and maximum input values. The absolute minimum and maximum values of each parameter can be found by hovering over its spinbox.