

IES Light

This page provides information on the V-Ray IES Light.

Overview

Photometric lights utilize an `.ies` file that contains the distribution profile for the light. An `.ies` file contains complete specifications of a real-world light bulb or tube including the shape of the light cone and the steepness of the falloff of the light. Such files are usually provided by the manufacturer of the real-world bulb, and the information in those files, which is gathered through lab experiments, is extremely accurate in its representation of the light source. By loading an `.ies` file, the properties of the light are recreated within Rhino and used by V-Ray during rendering.

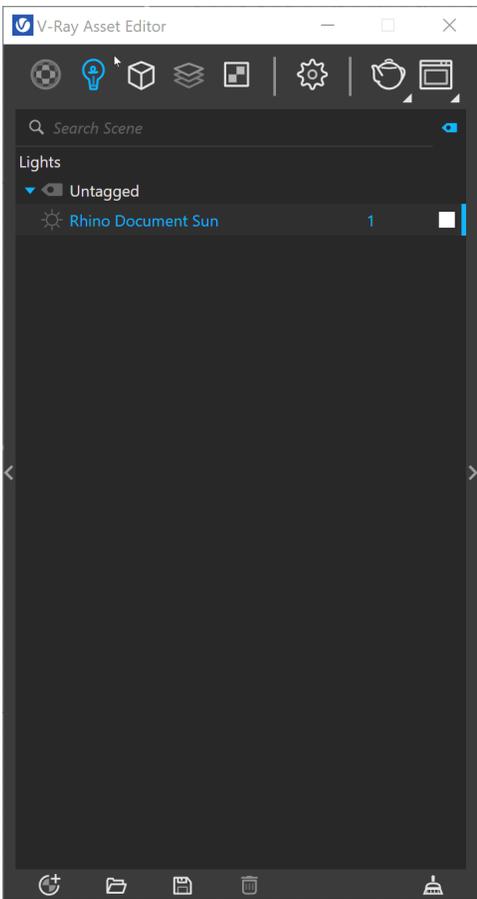
IES lights are particularly useful for architectural interior renderings, where it can be important to show the actual result of using specific man-made light sources in the scene.

V-Ray IES light(s) can be instanced by using Array or Alt+drag the light object in the Rhino viewport.

UI Paths

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

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



||V-Ray Lights Toolbar|| > **IES Light tool**



Rhino Menu Ribbon

||V-Ray|| > Lights > IES Light

Parameters

Enabled () – Turns the V-RayLight on and off.

Color – Specifies the color of the light.

Intensity (lm) – When enabled, specifies the strength of the light in Lumens to override the intensity specified in the .ies file. See [Intensity example below for illustration](#).

IES Light File – Specifies an .ies file to use for the current light.

Shape – Determines the shape of the light when calculating Soft Shadows. By default, V-RayLightIES uses the shape information stored in the .ies file. See [Shape example below for illustration](#).

From IES File - Uses the shape information stored in the .ies file.

Point - Treats the light shape as a point light.

Circle - Treats the light shape as a planar circular area light. Its dimensions can be specified with the **diameter** parameter below.

Sphere - Treats the light shape as a sphere light. Its dimensions can be specified with the **diameter** parameter below.

Diameter – Specifies the diameter for applicable **light shape** types.

The **Diameter** parameter is only available when the **Circle** and **Sphere** shapes are selected.

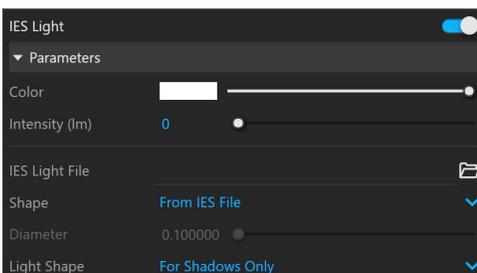
Light Shape – Determines whether and how the shape of the light is taken into consideration during the calculation of shadows and illumination.

Disabled – The light shape is not considered for illumination and the light generates sharp shadows.

For Shadows Only – The light shape is considered only for the generation of soft shadows. The illumination is not affected by the light shape (i.e. it behaves as a point light).

For Emission and Shadows – The light shape is considered for the calculation of the illumination and shadows.

The Light Shape parameter affects the shadows and emission when the Shape parameter is set to **From IES File**.



Options

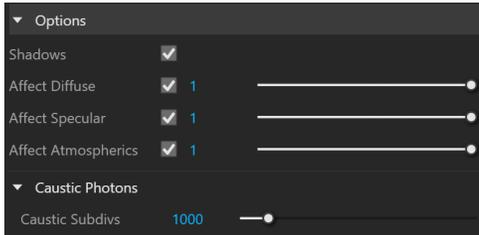
Shadows – When enabled (default), the light casts shadows. When disabled, the light does not cast shadows.

Affect Diffuse – When enabled, the light affects the diffuse properties of the materials.

Affect Specular – When enabled, the light affects the specular of the materials.

Affect Atmospheric – Specifies whether the light influences the atmospheric effects in the scene. The value determines the amount of involvement.

Caustic Subdivs – Used by V-Ray when calculating Caustics. Lower values produce noisy results but render faster. Higher values produce smoother results but take more time.



Example: Intensity

This example shows how the Intensity parameter affects the IES light.



Intensity is taken from the .ies file



Intensity = 300



Intensity = 600

Example: Shape

This example shows how light is affected by the different shapes of the IES Light. Circle and Sphere shapes examples are also compared with different diameters - 1.0 and 10.0.



Circle, Diameter = 1.0



Circle, Diameter = 10.0



Default shape from the IES light



Point



Sphere, Diameter = 1.0



Sphere, Diameter = 10.0

Notes

- Light Color and Intensity may also be adjusted in the Rhino Light Property Panel. If the intensity is set to 0, the value from the .ies file will be used instead.

