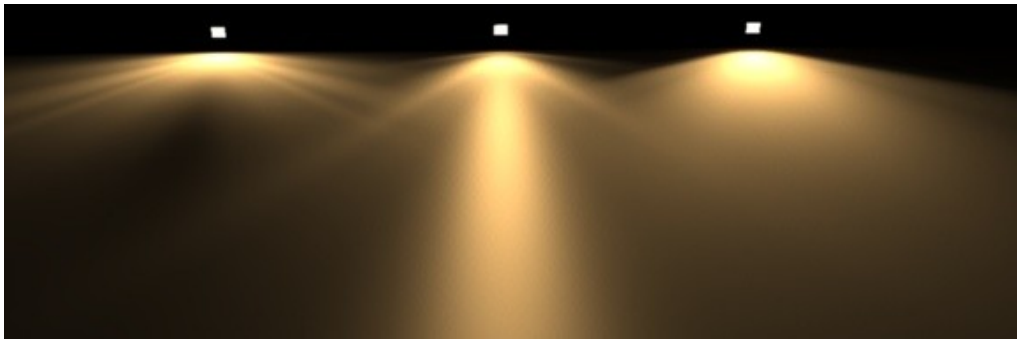
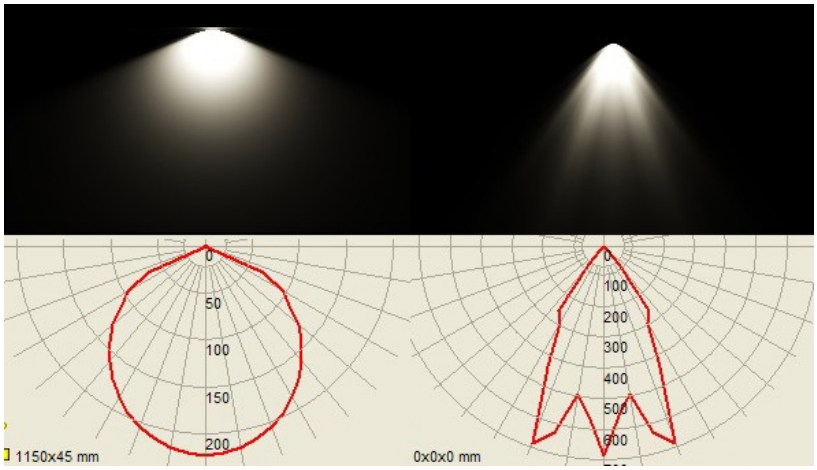
IES



IES stands for Illuminating Engineering Society. IES is a standard file format that holds information on the distribution of light intensity from a light source. You can think of it as a digital profile of a real world light. In 3D software like 3Ds max it can be used for creating lights with shapes and physically accurate form. By default, Indigo emits a basic light shape. While Indigo is capable of creating the real refractions of an accurately modelled light fixture to create this effect, it is far easier to use an IES profile, and the result is much the same. Many manufactures provide IES files for their lights, and it is a great way to add realism to your scene.

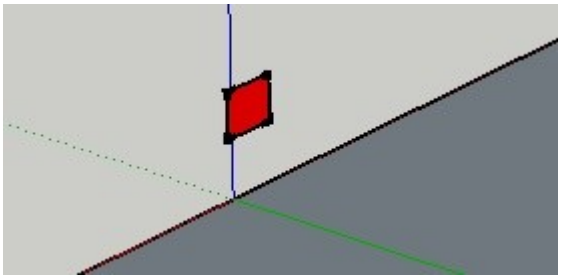


Digital Photometric data. With the basic Indigo profile Left, and an IES profile Right.

You can use an IES viewer to preview these profiles. There is a very good viewing software made by Andrey Legotin that can be found here: http://www.photometricviewer.com/

Setting up the scene

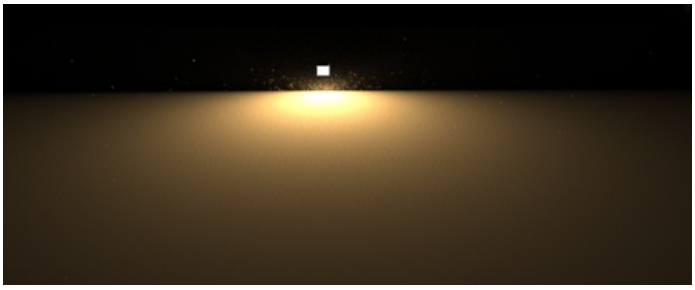
Firstly, we will set up a simple scene to show off the light effects. For this I have made a flat ground plane, to catch the light, and a small, single plane mesh above and perpendicular to it.



A single plane mesh raised off the ground

The plane will be our light-source, so in your exporter, select the it and assign an **emitting material.** Since we are working with artificial lighting, go to your **environment settings** and disable the sun and set a **black background.**

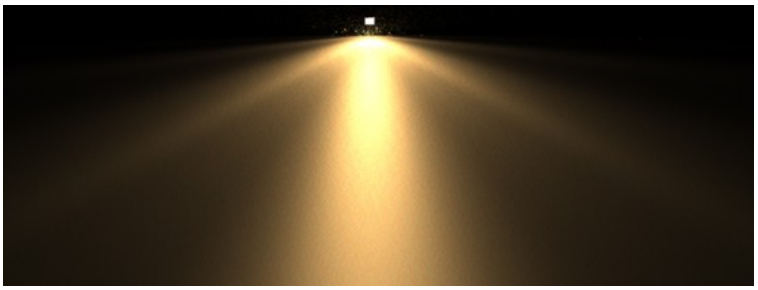
Hit render and you will get the standard Indigo light render like so:



Render with no IES profile

Adding an IES profile

Open the **material editor** of your Indigo Plugin, under **Emitter Attributes** you will find the **IES path.** Download the zip of IES files here http://www.indigorenderer.com/dist/ies-profiles.zip and link to one. Hit render to view the new IES profile in your scene.



Render with IES profile