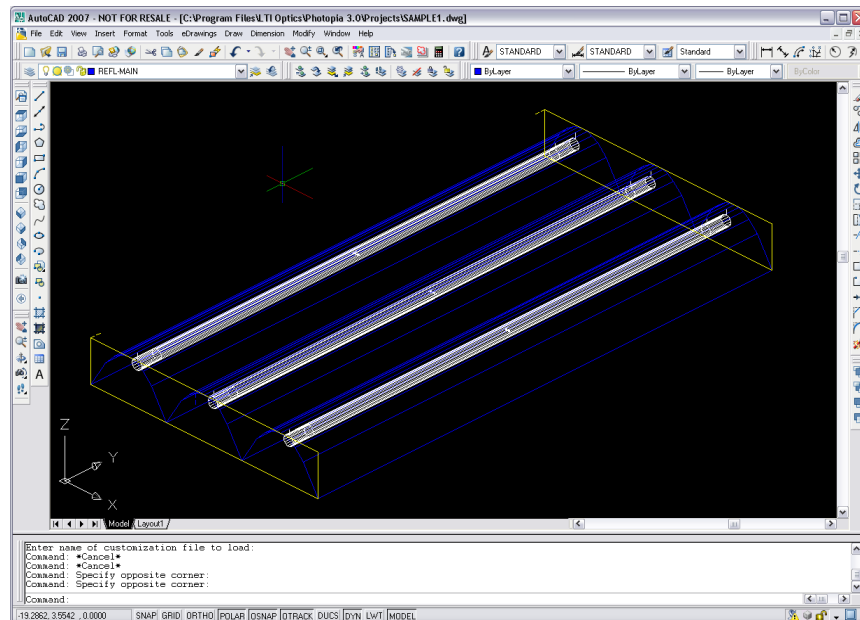


Beginner Tutorial 1 - Importing with the Luminaire Import Wizard

Below you can see a 3-lamp fluorescent luminaire design created in AutoCAD. This tutorial will show how to import this model into Photopia.



Getting Started

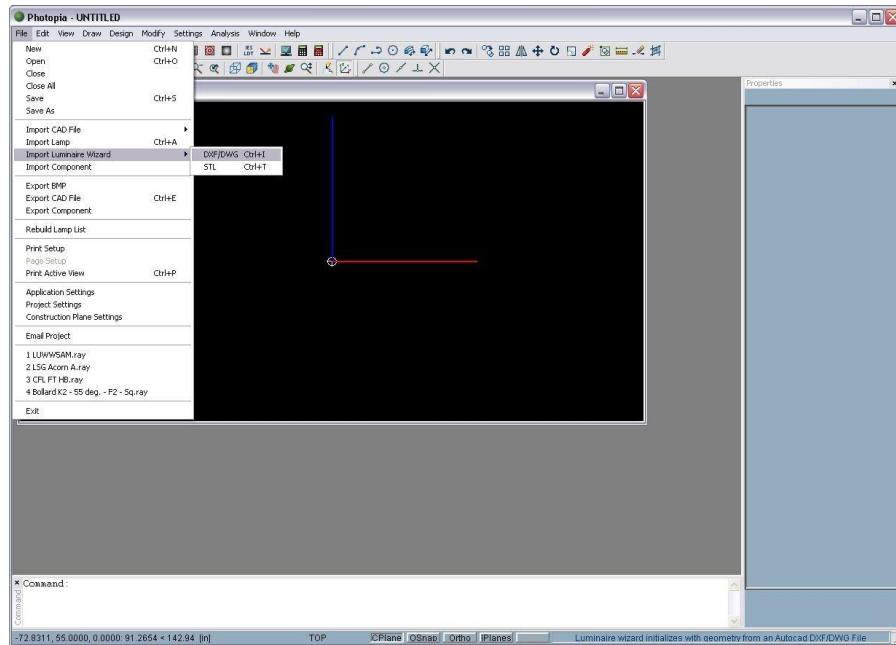
To start Photopia, select the Start button on the Windows task bar and then select **Programs > LTI Optics > Photopia 3** from the Start menu. If you are running a client installation, then just double click on the Photopia icon on your desktop. Since Photopia supports multiple projects to be opened at the same time, it starts without any project open. This allows you to either select an existing project or start a new one. For this tutorial, you will be starting a new one, so choose **File > New** from the main menu.

Importing your CAD file into Photopia

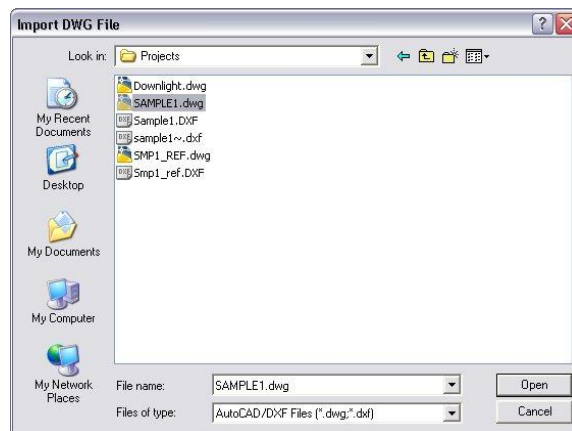
We will begin by importing the luminaire CAD file into Photopia via the Luminaire Import Wizard. This wizard combines the process of importing the luminaire geometry and the lamp(s). There are two options for the wizard, one that works with DXF and DWG files and one that works with STL files. This tutorial will work with a DWG file.

To import the luminaire CAD file into Photopia:

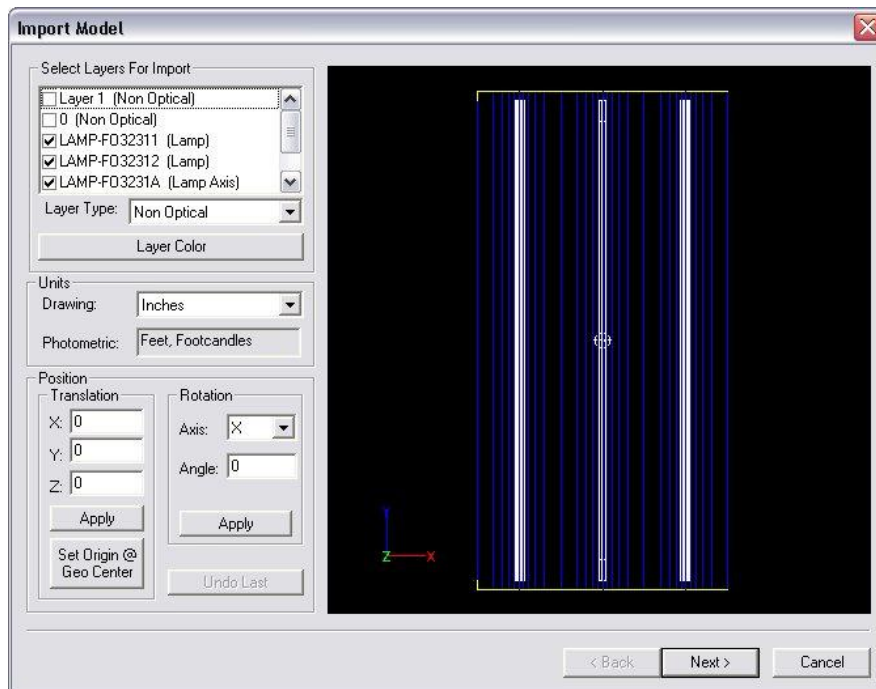
1. Select **File > Import Luminaire Wizard > DXF/DWG** from the main menu.



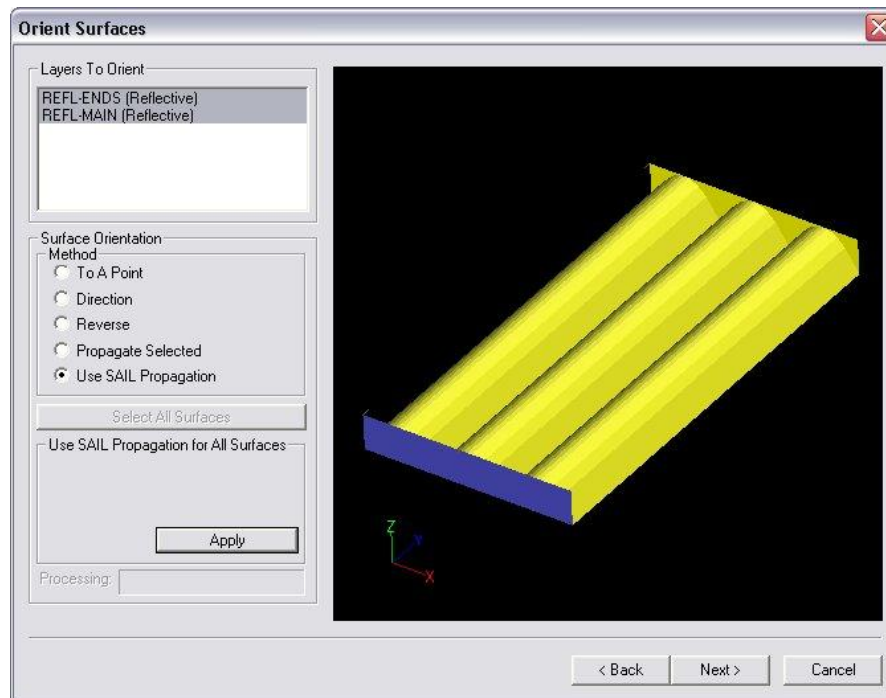
2. Select the CAD file named *SAMPLE1.DWG* in the C:\Program Files\LTI Optics\Photopia 3\Projects folder.



3. Click the Open button. Photopia then displays the Import Model screen.



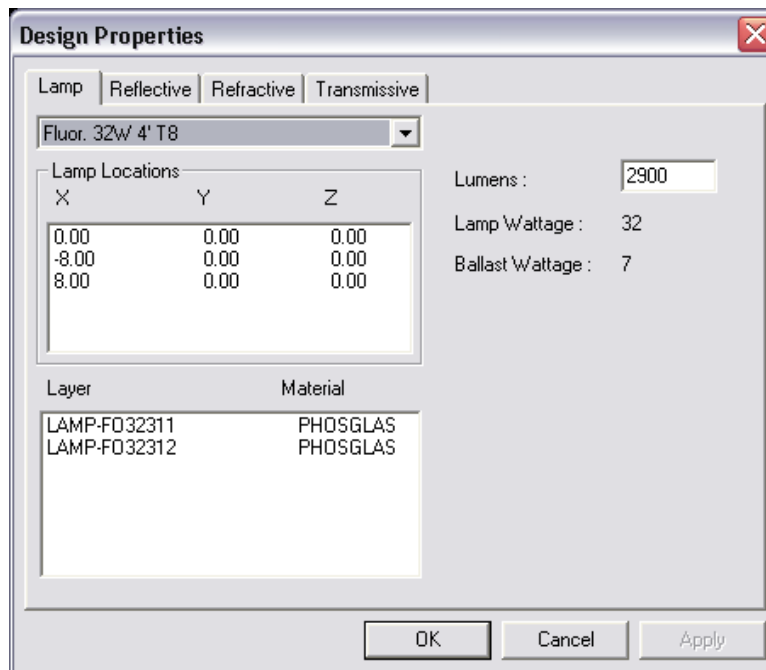
4. The geometry that will be imported is shown in the CAD view on the right side of the screen. You can manipulate the CAD view with the mouse. Right clicking in the CAD view exposes a pop-up menu with numerous display options.
5. The layer list box in the upper left-hand corner contains all of the layers in the DWG file. Layers that are checked will be imported and are shown in the CAD view. Make sure that all layers beginning with "REFL" and "LAMP" are checked, while all others are not. Also notice that each of these layers has its type specified in parentheses. You can change the layer type by selecting a layer and changing the item in the Layer Type list box.
6. Your Units for the drawing are shown in the list box below the list of layers. Be sure that the drawing units are set to *Inches* for the SAMPLE1.DWG file. When done, click Next.
7. The Orient Surfaces screen will open. Here you can specify the method that Photopia will use to determine surface orientation. Select Use SAIL Propagation and click Apply. Photopia will use the SAILs in this CAD file to determine the surface orientation. You can use the CAD view to examine the effects of SAIL propagation. To do this, right click in the CAD view and select Orbit from the Dynamic Views menu. Now you can change your view of the luminaire by left clicking and dragging the mouse in the CAD view. Surfaces will be rendered in their layer color when viewed from their "front" side and the opposite color when viewed from their "back" side. Note that the lamp surface orientations will be determined automatically, so lamps are not shown in this screen.



- Click Next to go to the Add Lamp window. We already have all of the lamps we need, so click Finish. You have now imported the luminaire geometry into Photopia.

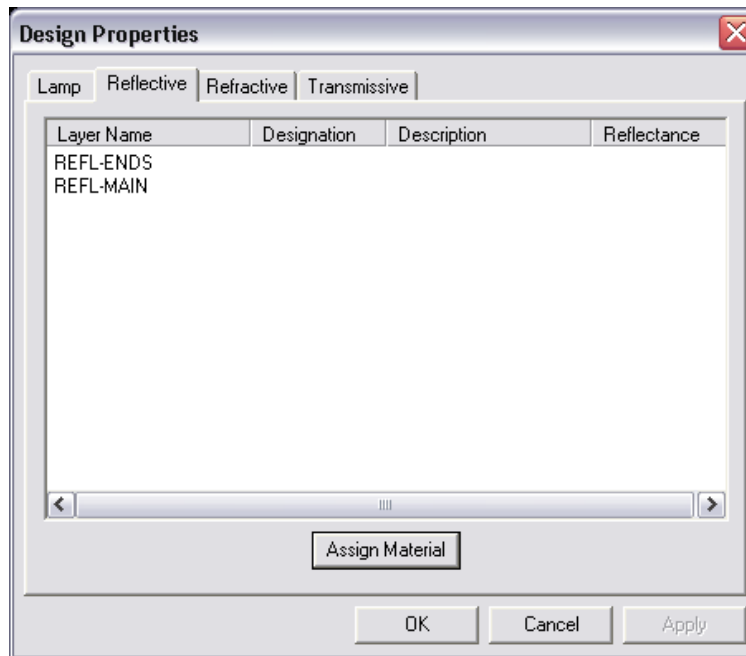
Design Properties

The Design Properties screen contains a summary of what was found in the CAD file.



The **Lamp** tab shows that three instances of the fluorescent lamp were found. The three lamps' locations are listed, and you can see what materials are used to model them. Here you may alter the lamp lumen rating.

The rest of the tabs allow you to complete the specification of the luminaire you have imported by assigning materials to the different layers.

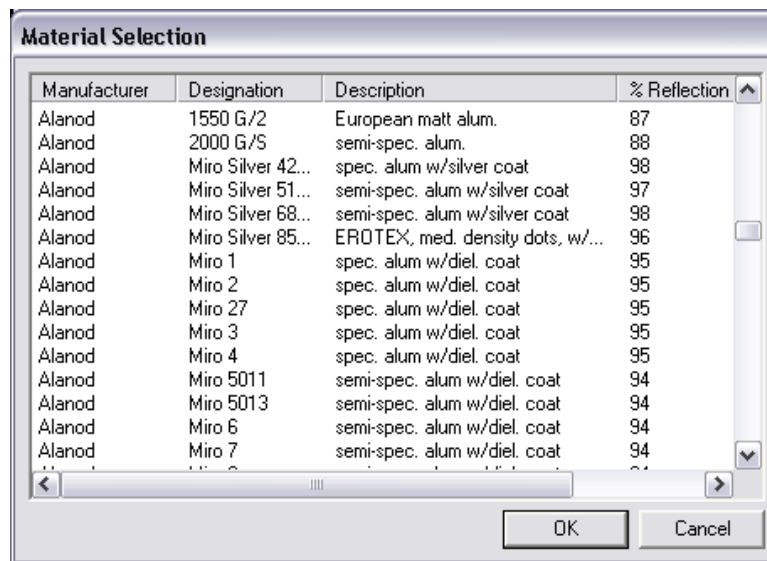


Assigning Materials

Photopia provides a library of reflective, refractive, and transmissive materials, depending upon the modules purchased. You must assign materials to the specific layers of your design before an analysis can be completed. Multiple layers of the same type (e.g. multiple reflector layers) must be used if different materials are to be assigned to those components.

The SAMPLE1 design contains only reflective layers, thus there will be no layers listed in the Refractive or Transmissive tabs. Note that the Refractive tab will not be visible unless you purchased the Refractor Module. To assign materials to the reflective layers:

9. Select the **Reflective** tab from the Design Properties screen.
10. Select the REFL-ENDS layer.
11. Click the Assign Material button. This displays the Materials screen.
12. Scroll down the list of materials to the Generic section and choose *PAINT007*, a white paint that is 87% reflective. If you did not purchase the General Materials Library, choose *Alanod Miro 4* and click OK.
13. Repeat this process for the REFL-MAIN layer, choosing *Alanod Miro 4* as the material for this layer. Note that you can use the Shift and Ctrl keys to select multiple layers for material assignments. When you have finished with the Design Properties screen, click the OK button.



14. Save the project by choosing **File > Save**.