

# 3D Virtual Reality

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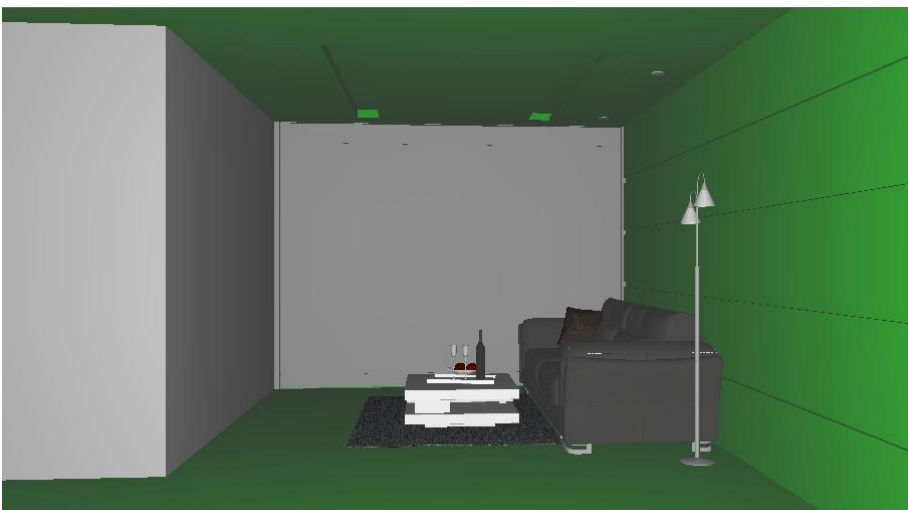
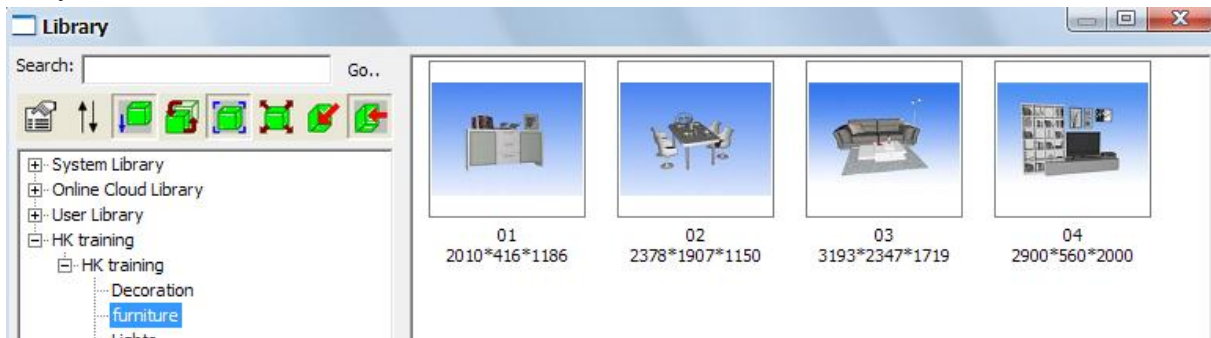
## Step 1: Furniture layout



### 1.Lay furniture in 3D

select furniture from library

a.lay sofa



## 2. Lay furniture on top view

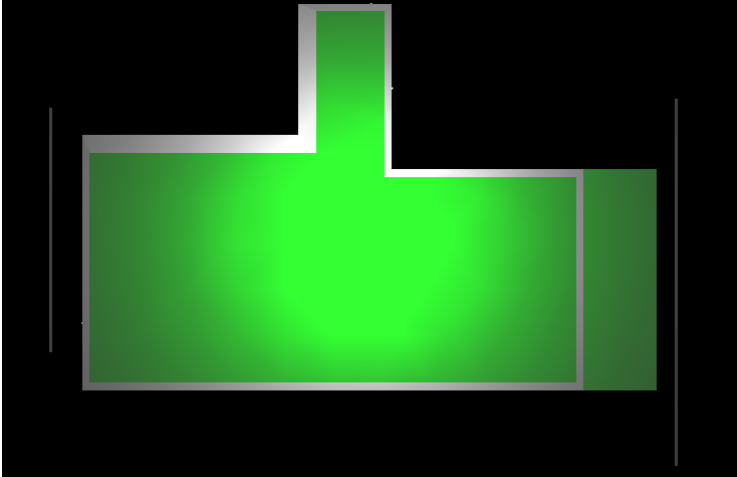
It will be easier to lay main furniture on top view.

### 2.1 shift to top view

a.click the first tab on the view panel



The scene will be shifted to top view.



### 2.2 Change the camera height

After you transfer to Top view, you may not see the lamp.

You can change the camera to proper height which is from floor to ceiling.

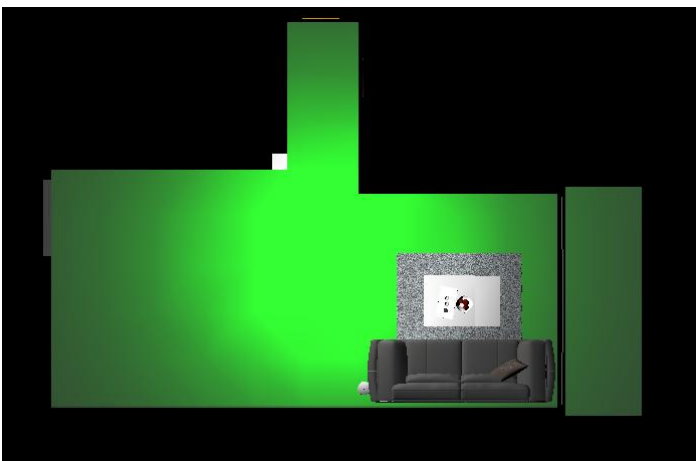
a.Select move mode in walk mode.



b.Press the left click and do not release

c move mouse up and down in the scene.

The scene will show gradually from top to bottom as below.



## 2.3 select main furniture

a. When dragging the furniture, you can press **Space** to rotate.



b. Lay main furnitures in top view



### 3.Lay decoration

Lay the decoration according to these following pictures.

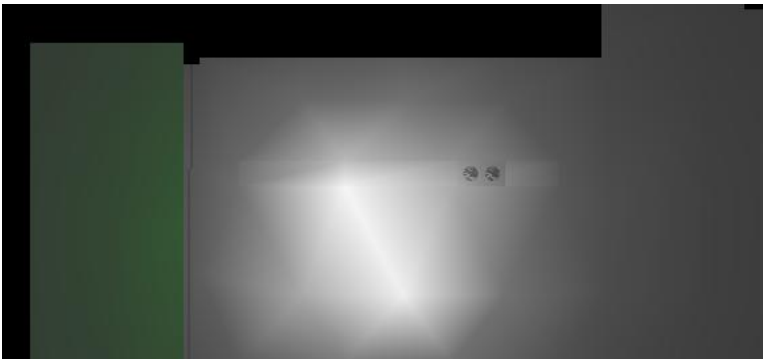


#### 4. Install down light

##### 4.1 Install one down light on the ceiling.

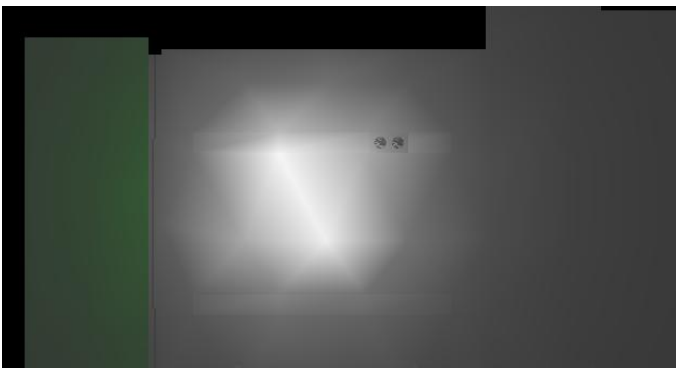


Move the down light to proper position in bottom or top view



##### 4.2 Copy the light.

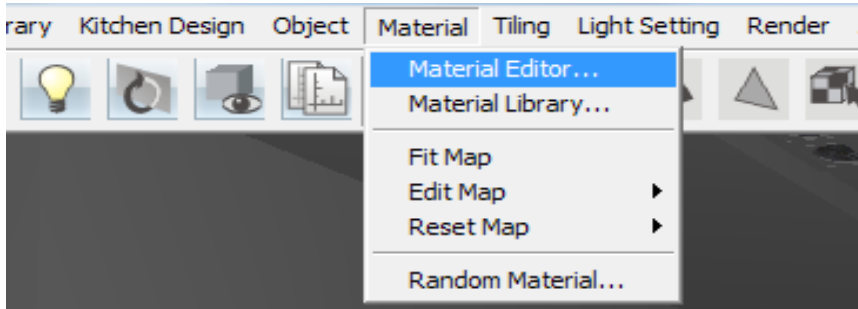
a. Transfer to bottom view



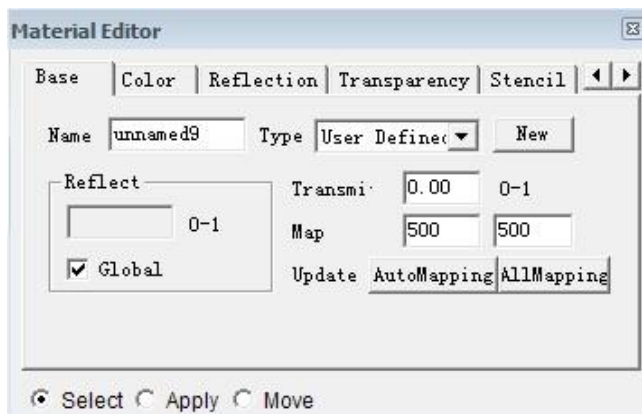
## Step 2: Material Setting

### 1.Back wall

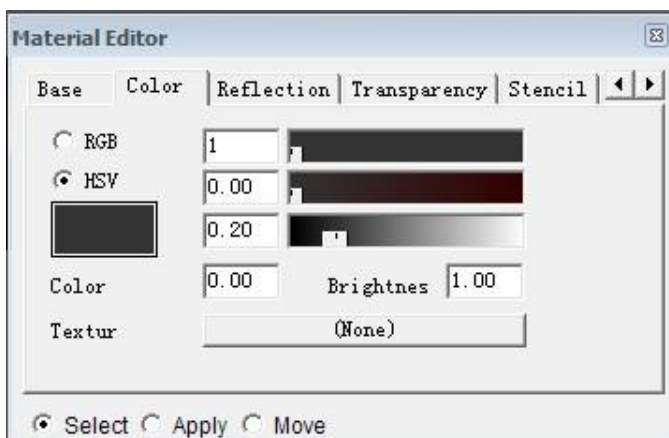
#### a.Material>Material Editor



#### B. Click on the object, select color tab

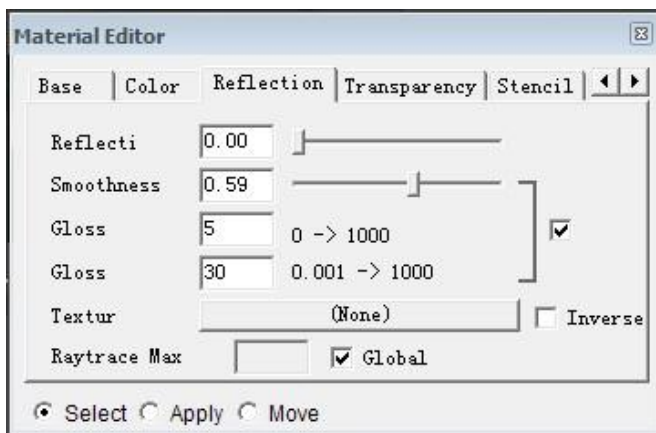


#### c.Color : HSV 1,0,0.20





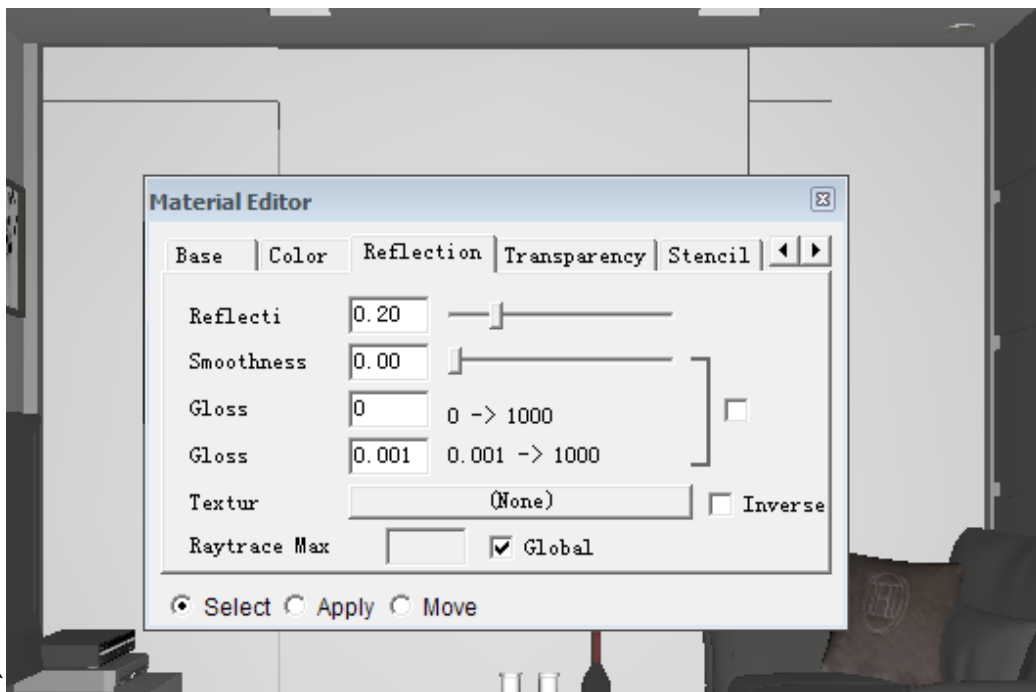
d. Click reflection tab , click Gloss 5 , Gloss 30.



## 2.Balcony Door

White

Reflection 0.2、Transparency 0.75

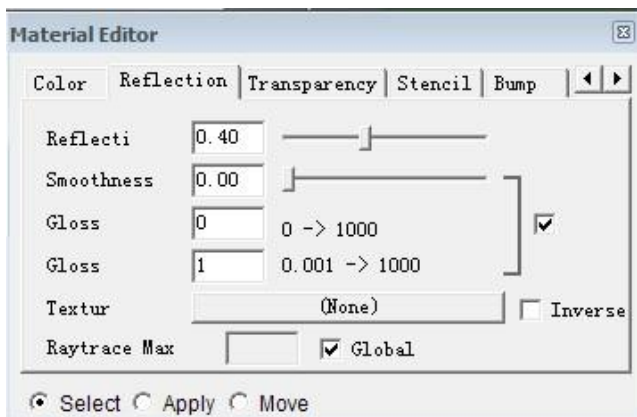




### 3. Balcony Rail

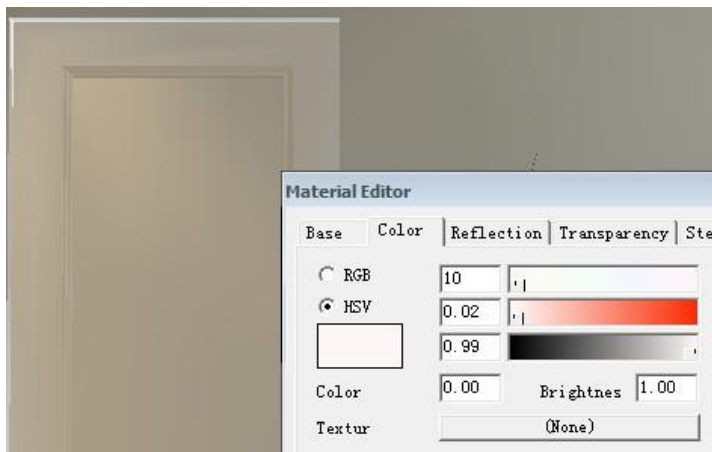
White

Reflection 0.4, Transparency 0.7



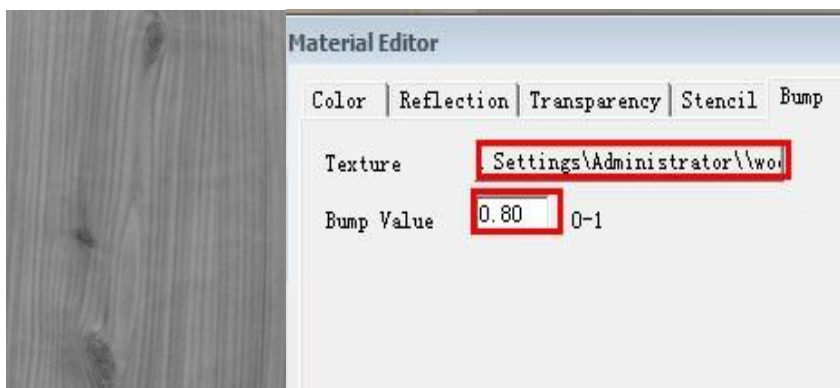
### 4. Wood door

a. Color : white



b. set bump effect

wood door bump effect.jpg (in **Texture file folder**)



After raytrace, its bump effect will be like this.



### **5.Inner and balcony Floor**

Drag the map to floor directly

1.Floor tile.jpg

Reflection 0.2、 Smoothness 0.02、 Gloss 5、 Gloss size 30、 bump 0.2

2.balcony tile.jpg

Reflection 0.2、 Smoothness 0.02、 Gloss 5、 Gloss size 30、 bump 0.2

### **6.Window Frame**

window frame.jpg

Reflection 0.3、 Gloss 5、 Gloss size 30

### **7.Room ceiling and balcony ceiling**

Set ceiling material as the white wall

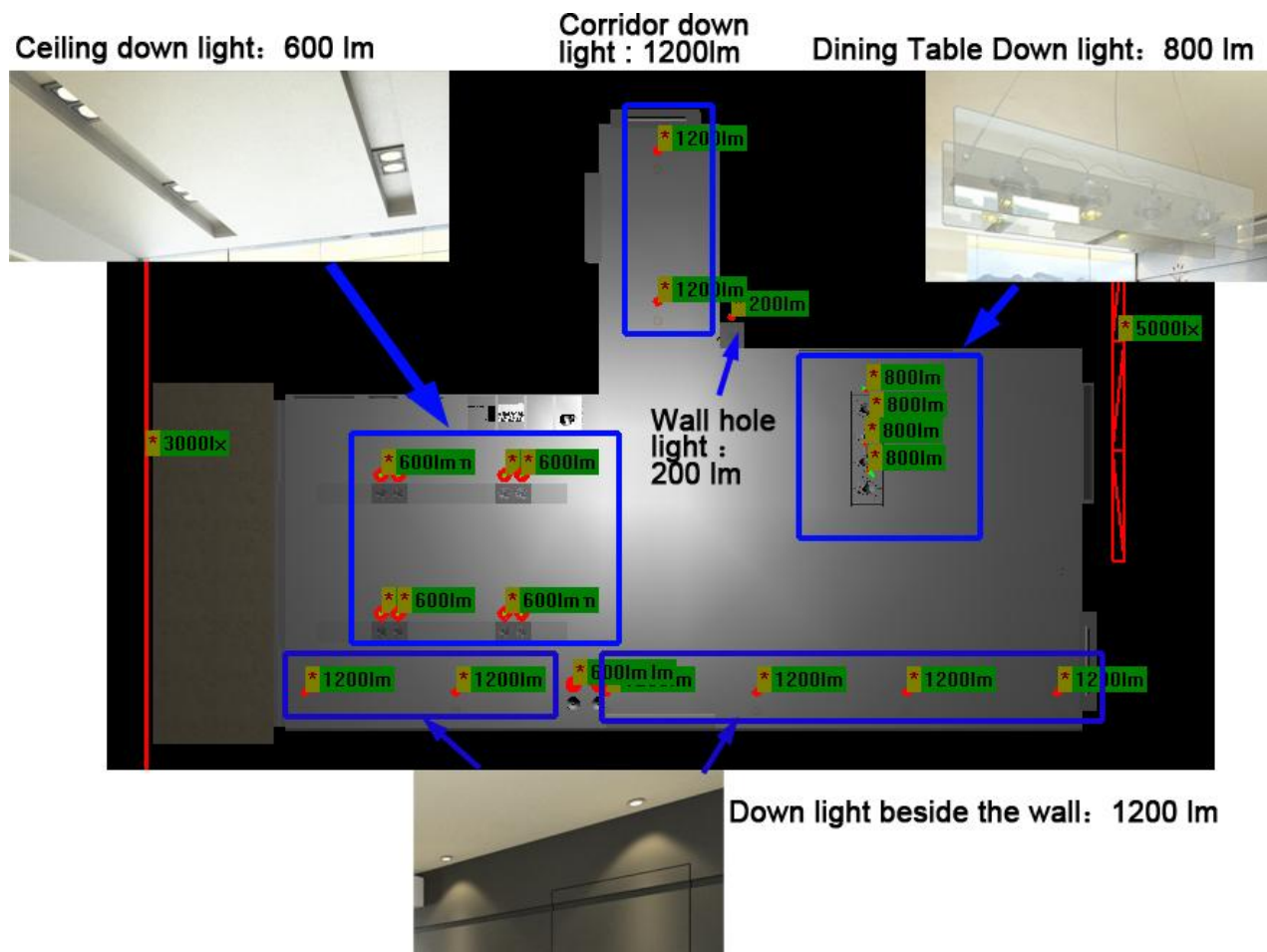
## Step 3 : Light Setting

### 1 Set IES

all the lights in this scene are IES.  
select the IES in **Texture file folder**

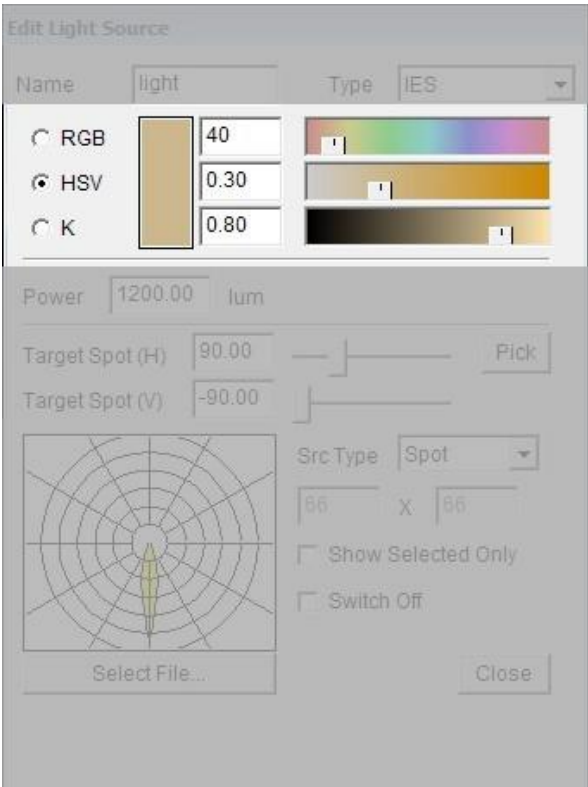
### 2 Light parameter

- 1, Corridor down light : 1200lm
2. Down light beside the wall : 1200 lm
3. Ceiling down light : 600 lm
4. Dining Table Down light : 800 lm
5. Floor lamp : 600 lm
6. Wall hole light : 200 lm



3 Color: HSV 40 0.3 0.80

All light color is as below.

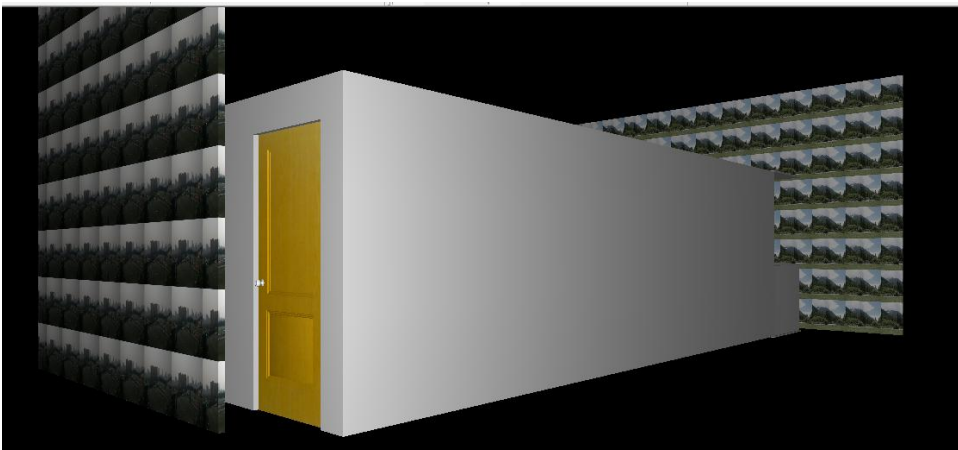


## Step 4: Sunlight and Background

### 1.Set Background

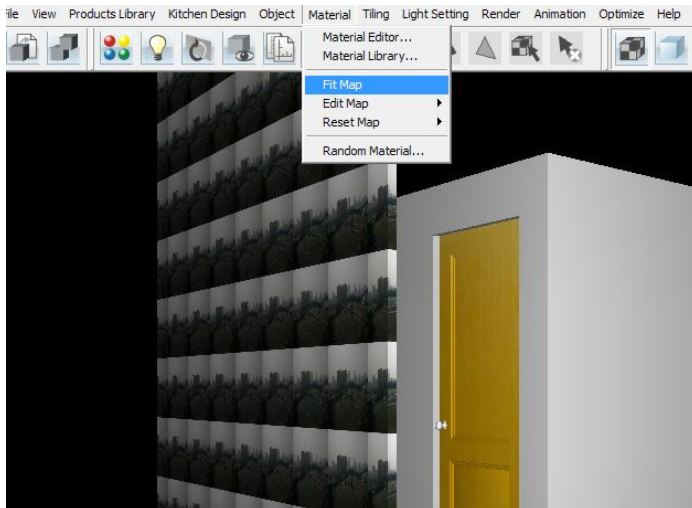
Drag the backgroundleft.jpg to the left board (dining room side)

Drag the backgroundright.jpg to the right board (balcony side)



## 2. Use fit map function to change the map size.

a. Click Fit map then click the board.

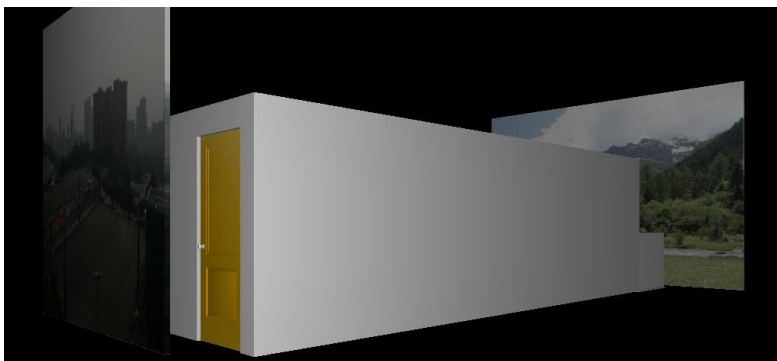


B. tick group



C. Right click to confirm

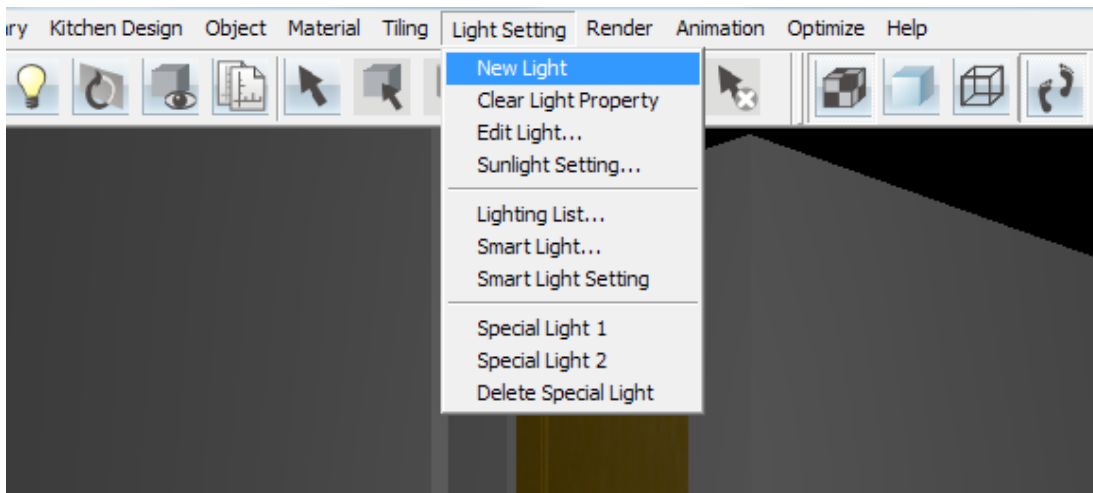
Set both of these two board. The map will be like this.



### 3.Set Sunlight

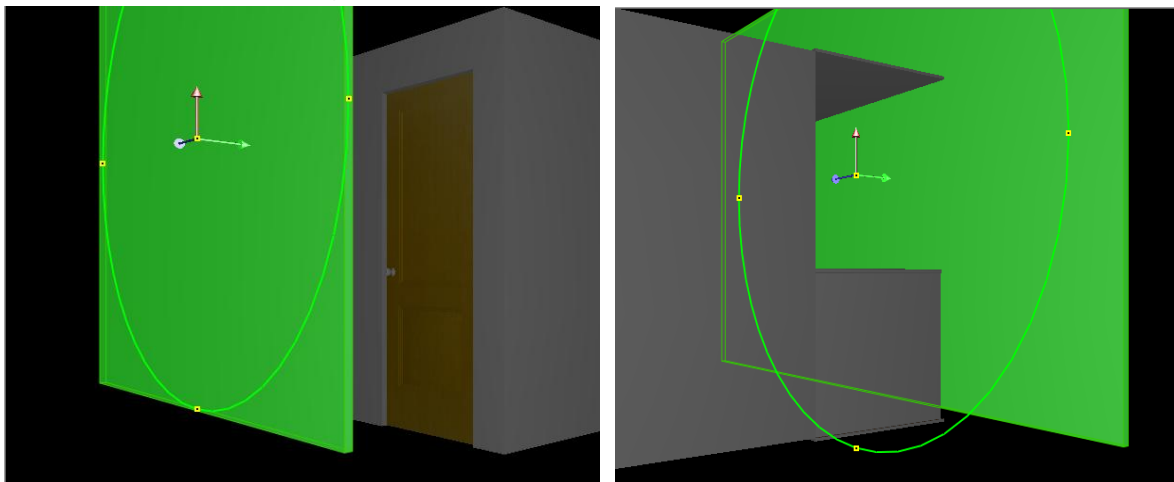
#### 3.1 set the board as light source

a.Light Setting-> New Light



b.Select the first board as light source. Right click to confirm.

Set another board as light source



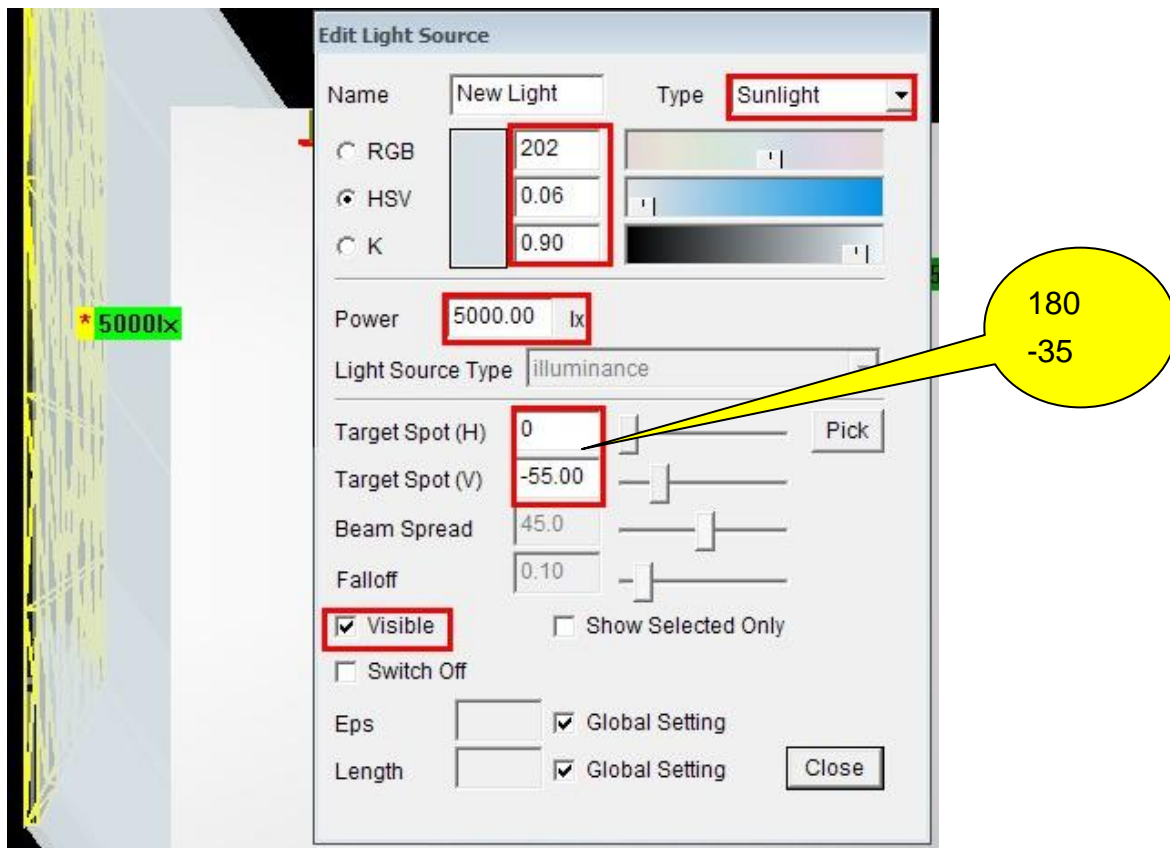


### 3.2 Set the dining-room side sunlight

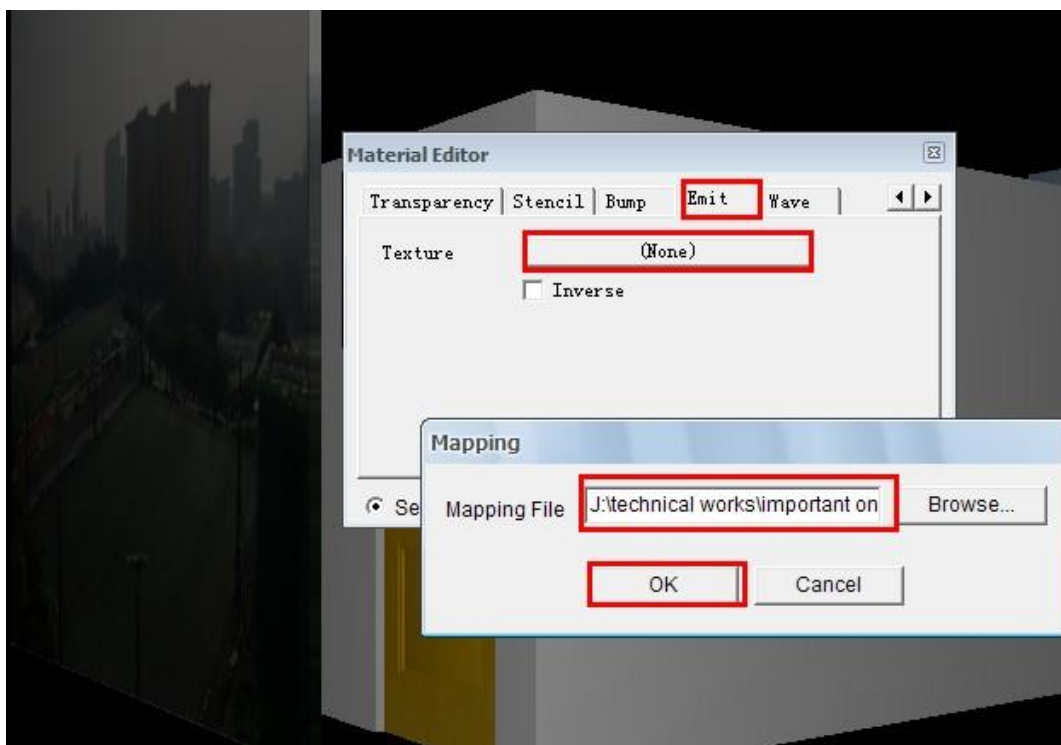
a. Light setting->Edit light

Power 5000lx

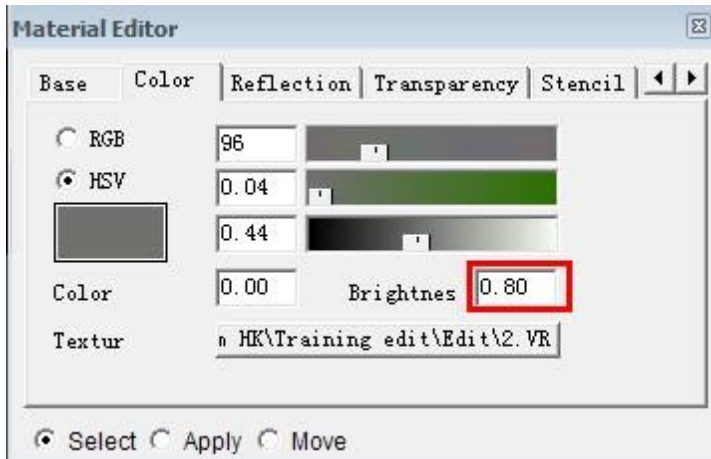
Color 200 0.06 0.9



b. Set Emit



c. Set the board brightness 0.8

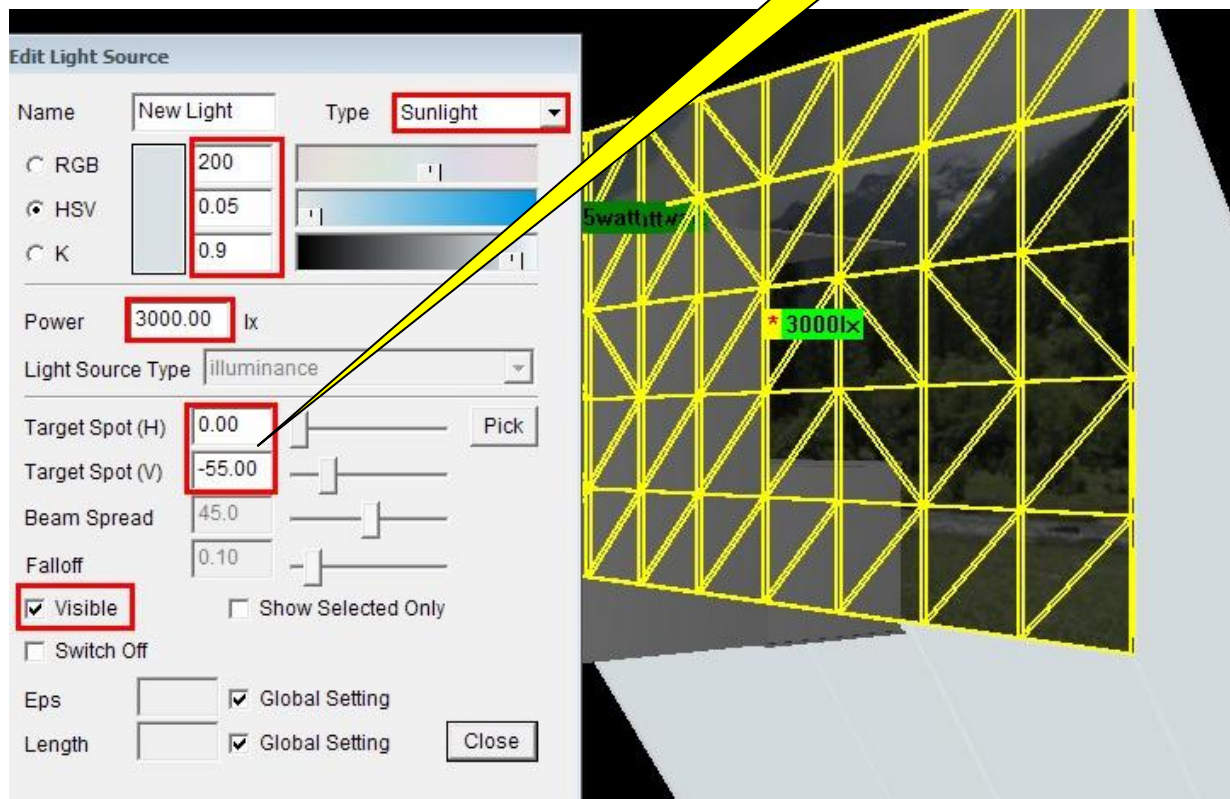


### 3.3 Set balcony side sunlight

a. Light setting->Edit light

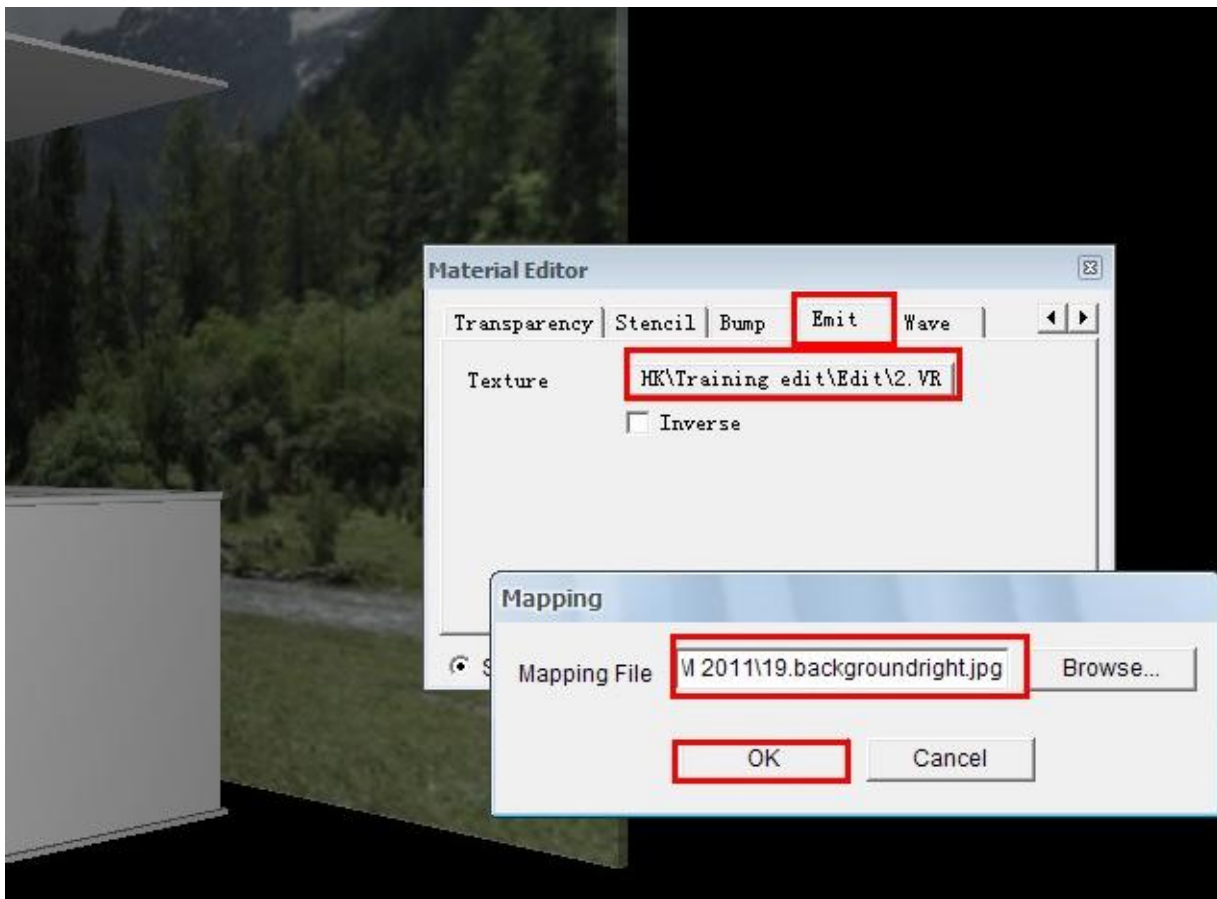
Power 3000 lx

Color 200 0.05 0.9

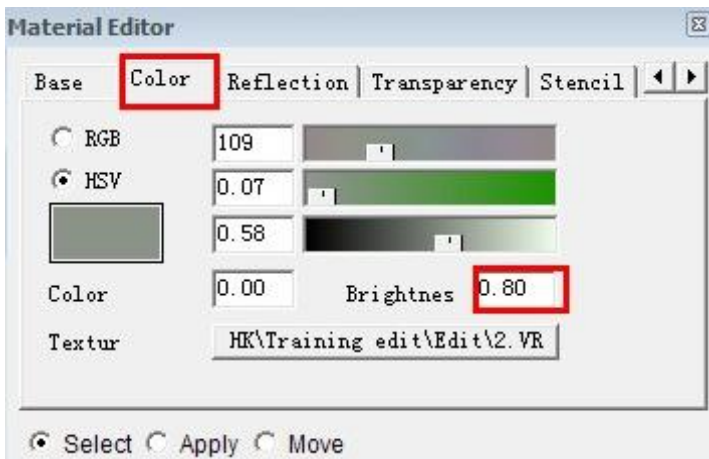


b. Set Emit

Select from **Texture file folder**



c. Then change the brightness 0.8

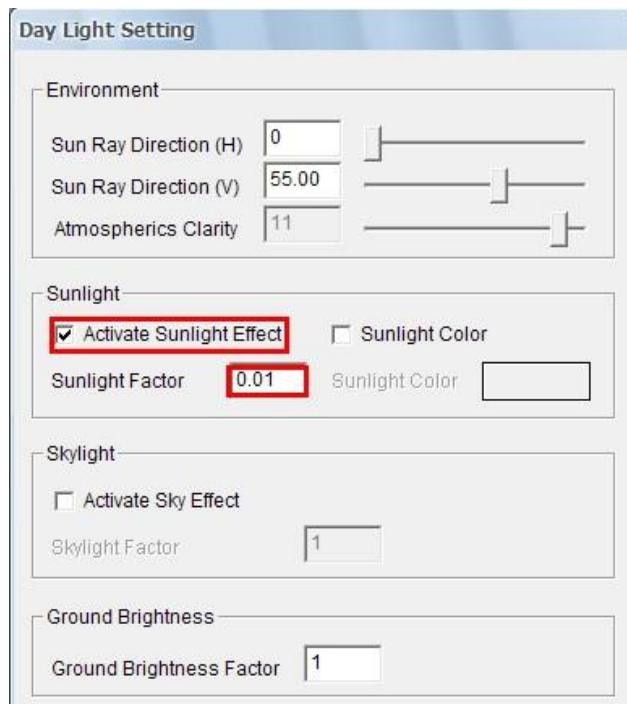


## Step 5: Render

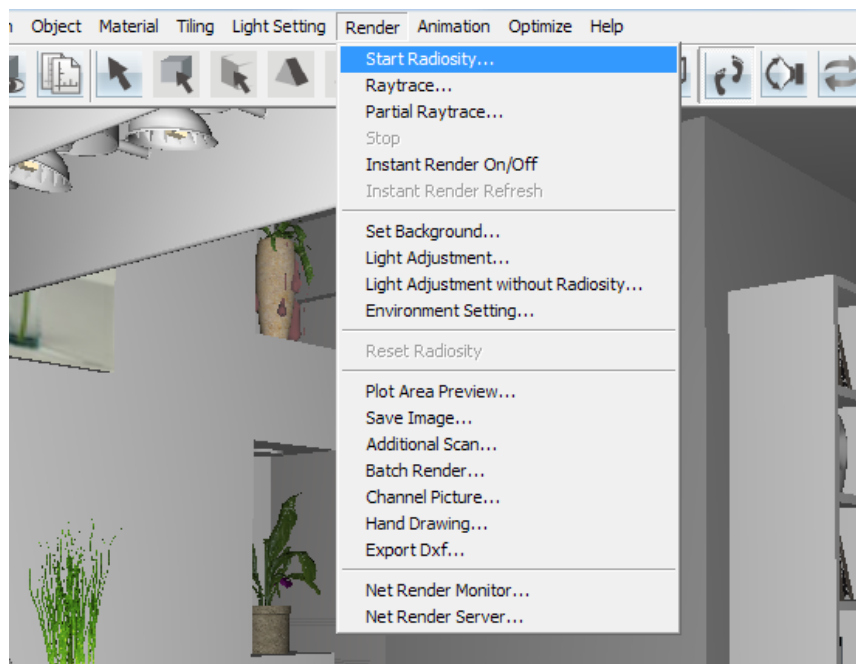
### 1.Day light Setting

1.Light setting-> Sunlight setting-> Day light setting.

Tick activate sunlight effect.



### 2.Radiosity



**Render Parameters**

**Render Method**


☒ Continue Until [Stop] Button is Pressed

☐ Stop Running After  times

☐ Stop Running After  minutes


**Precision**

☒ Normal ☐ High ☐ User Defined

 **Direct**

Epsilon

Subdivide

 **Indirect**

Epsilon

Subdivide

**Sky Method**

☒ Indoor ☐ Outdoor

☒ Calculate Sunlight Through Opening Only

**Skylight Precision**

☐ Low ☒ Mid ☐ High

**Diffuse Factor**

After radiosity, scan the scene more than 20 times.



[44] Surface:416855 Time:5.51Min Error:0.088% Power Used:2.70%

### 3. Save image

There are two methods to render.

Photon rendering will have better effect but take longer time.

More 50 times to scan the scene will be needed.

