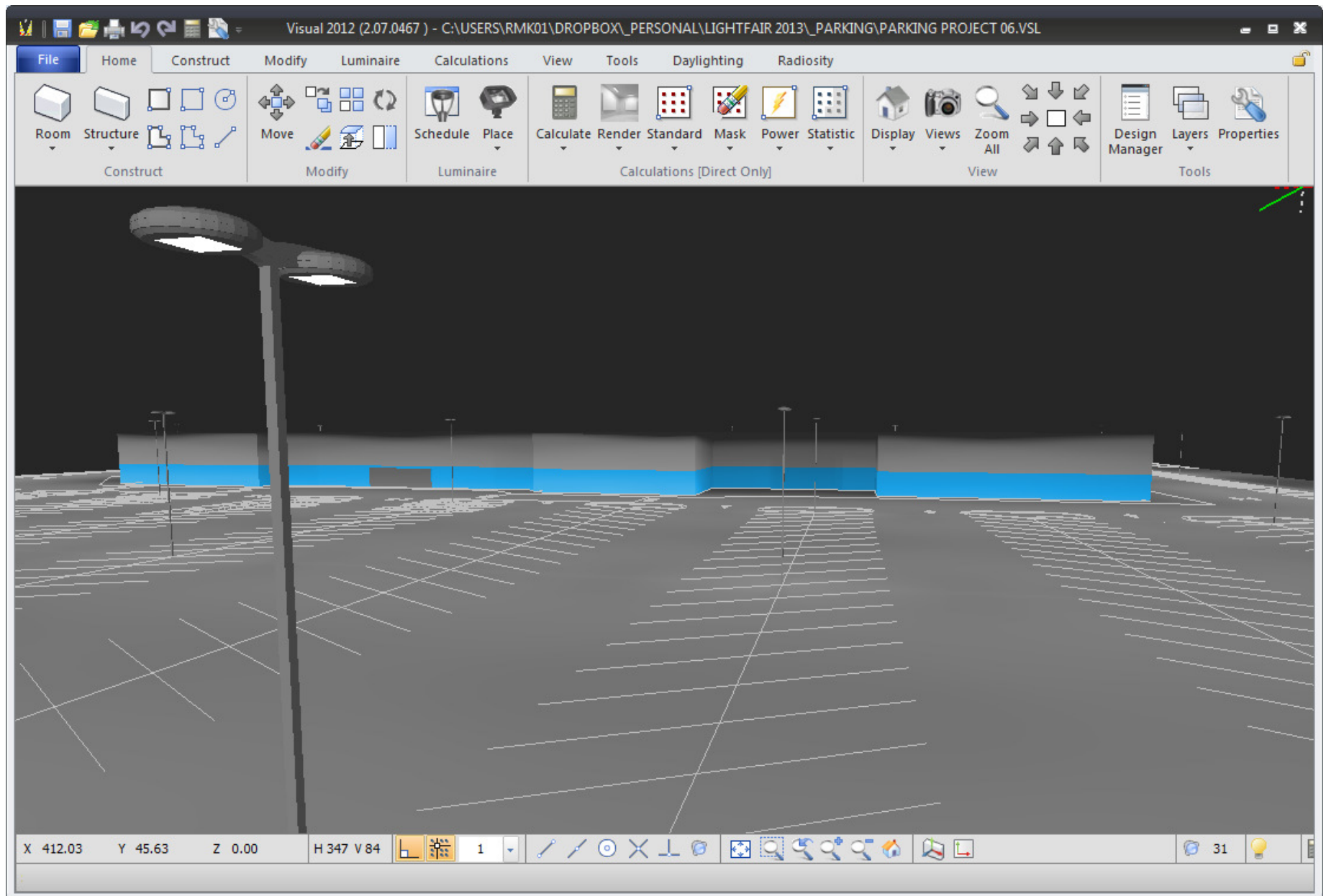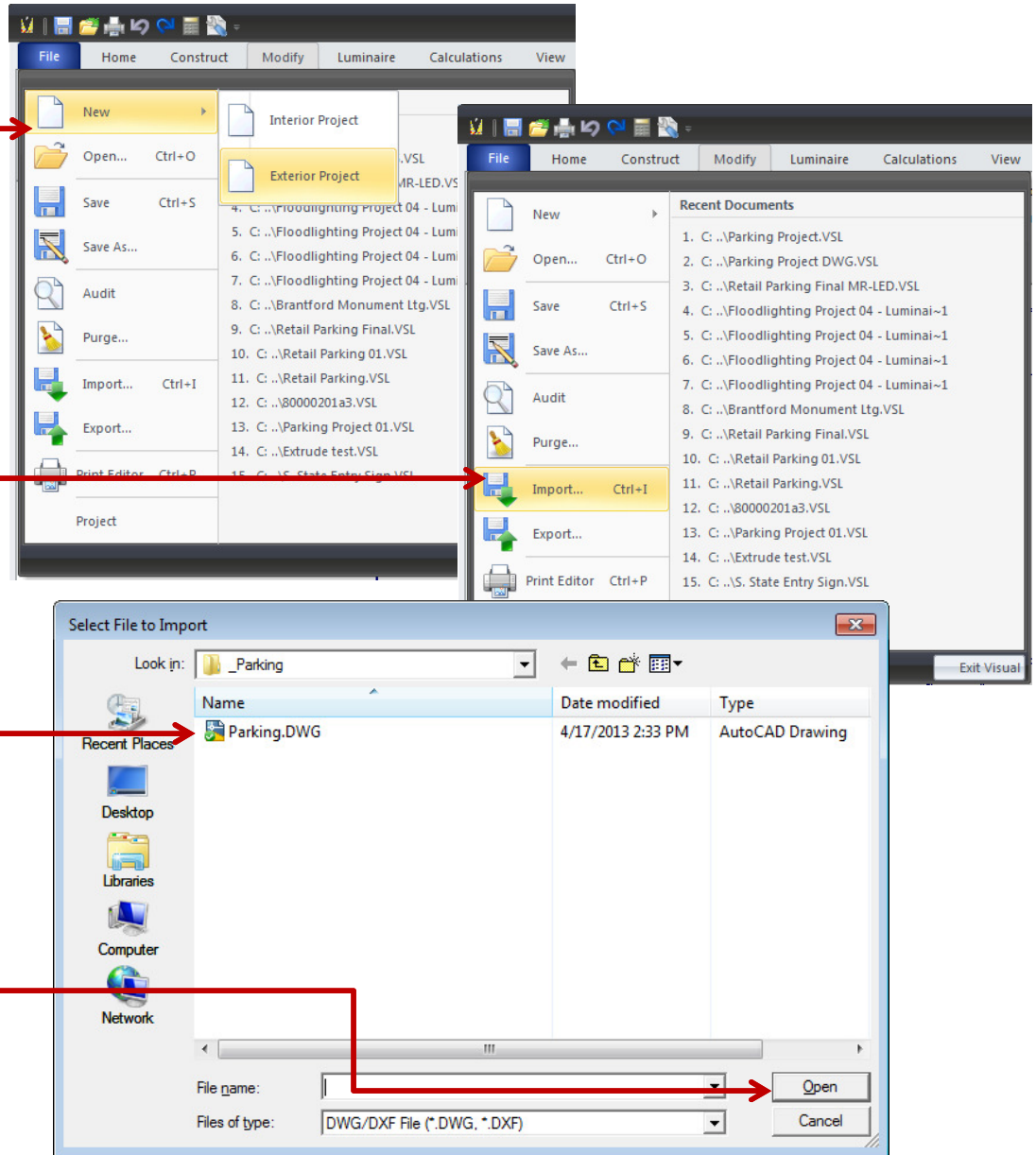# Parking Project

Parking Project

Import a DWG file into Visual

1. From the **File** tab, select **New->Exterior Project**

2. From the **File** tab select **Import**

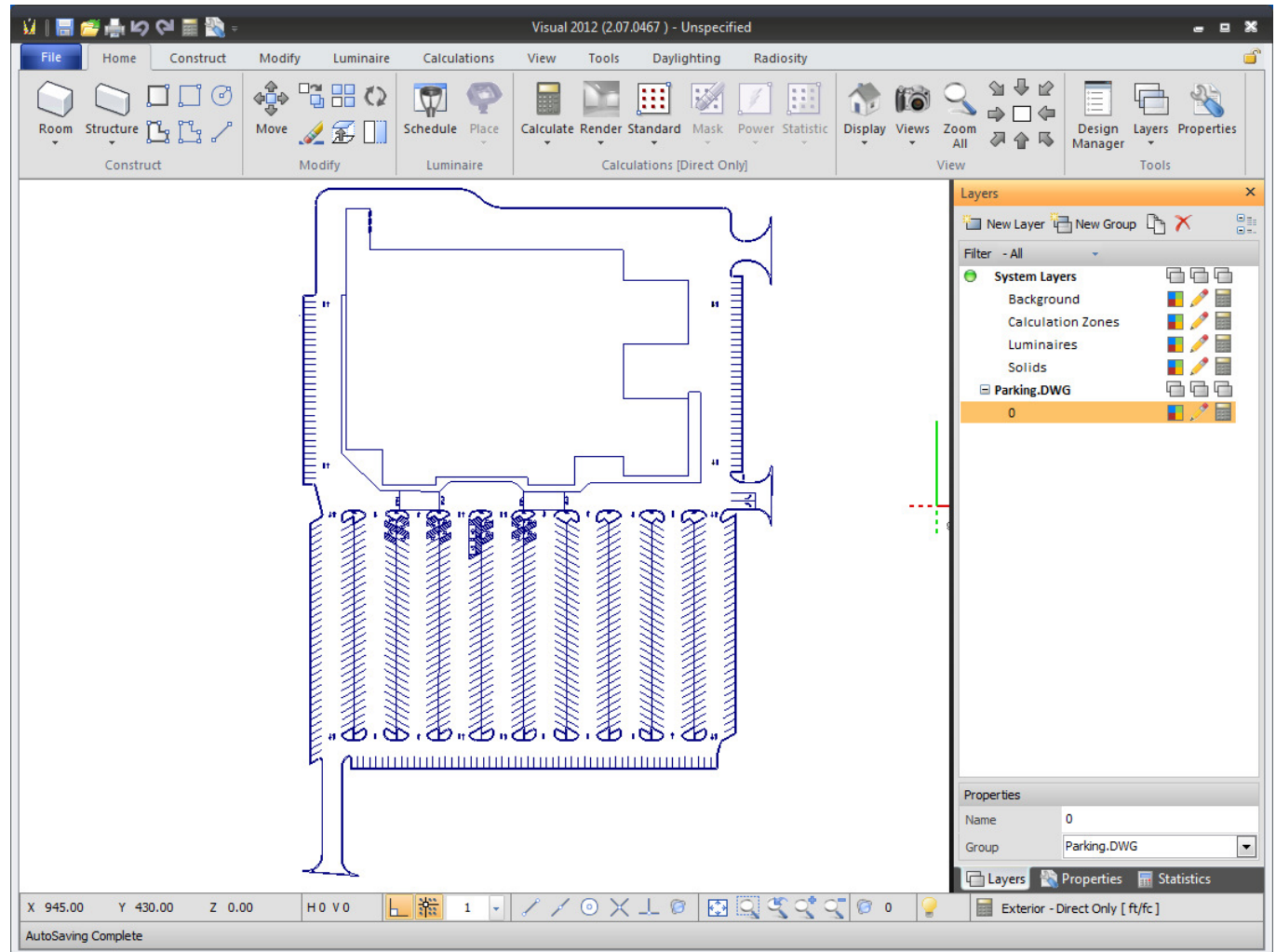3. Select the **Parking.DWG** from the Lightfair 2013 folder.

4. Select the **Open** button on the File Dialog box

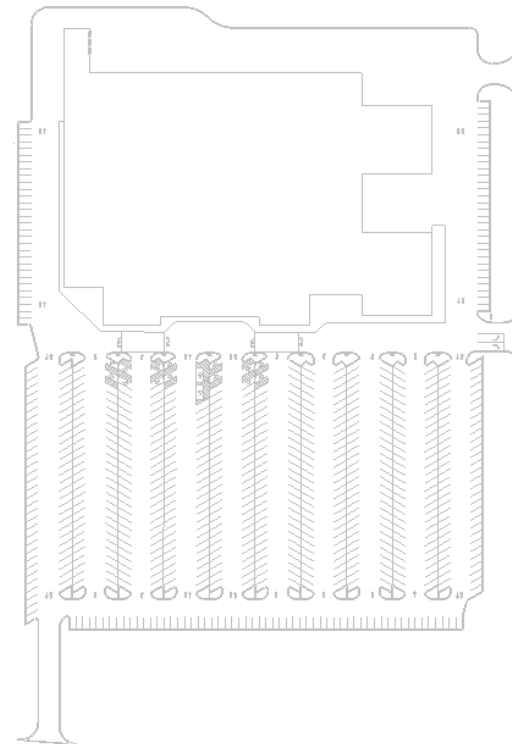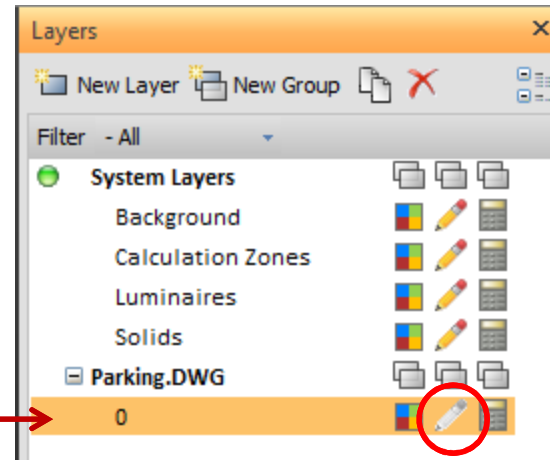# Parking Project

Design Criteria

- LED Product

- Minimum Illuminance = .5fc (Main Parking Area)

- Max/Min 5:1 (Main Parking Area)

Parking Project

Make the import DWG entities undeditable

1. In the **Layer Manager** left-click on the pencil on Layer **0** under the **Parking.DWG** layer group.

2. A gray pencil indicates an **Uneditable** state for the layer. The entities on the screen will displayed as gray.

Parking Project

Add luminaires to the Luminaire Schedule

1. Click the **Schedule** button on the **Home** tab to launch the Luminaire Schedule

2. Click the **New** button to launch the Product Selection dialog

3. Navigate the Acuity Brands database to the **\Lithonia Lighting\Outdoor\Area Lighting\LED Area\MR2-LED** folder

4. Select **MR2 LED 2 30B700/40K MVOLT SR3**

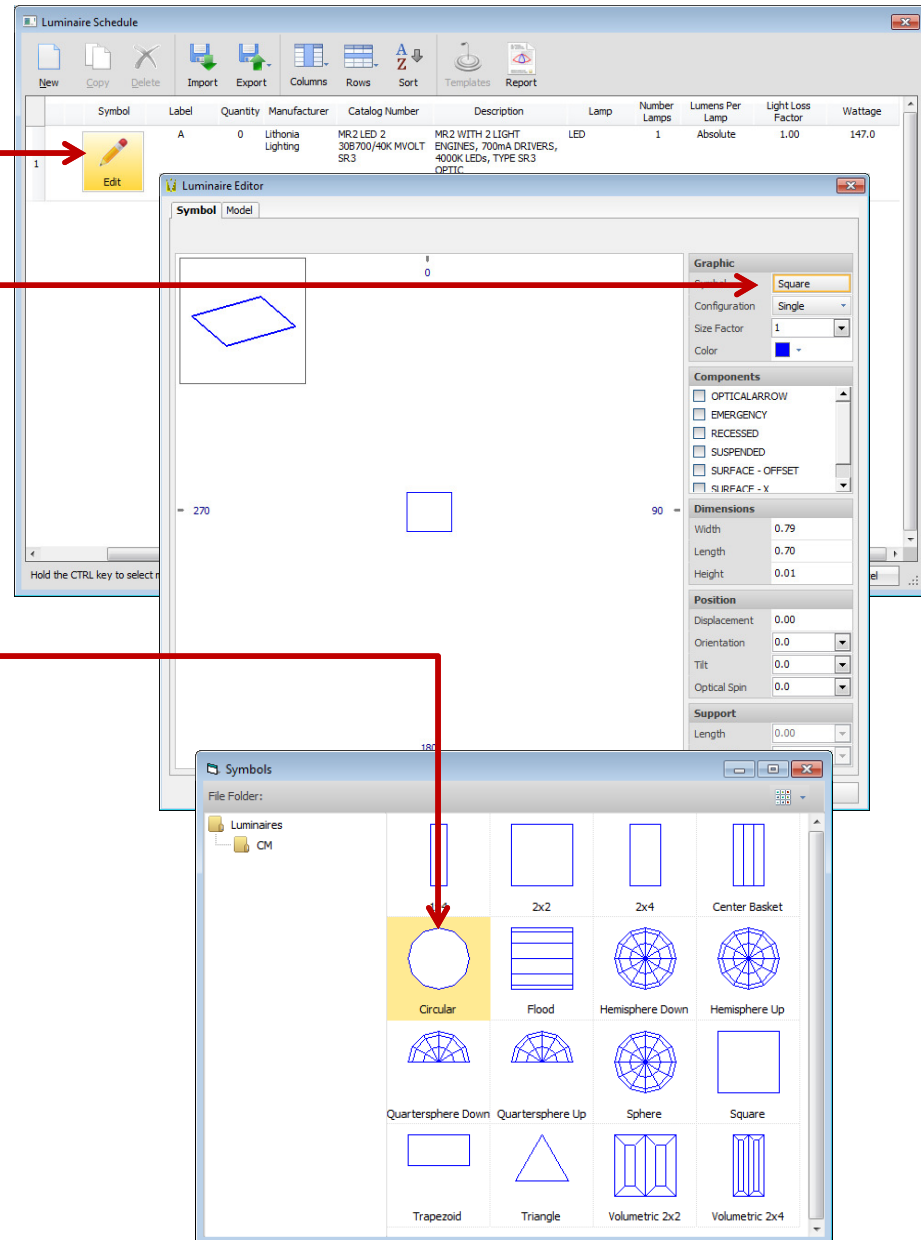5. Select **OK** to add to the luminaire schedule
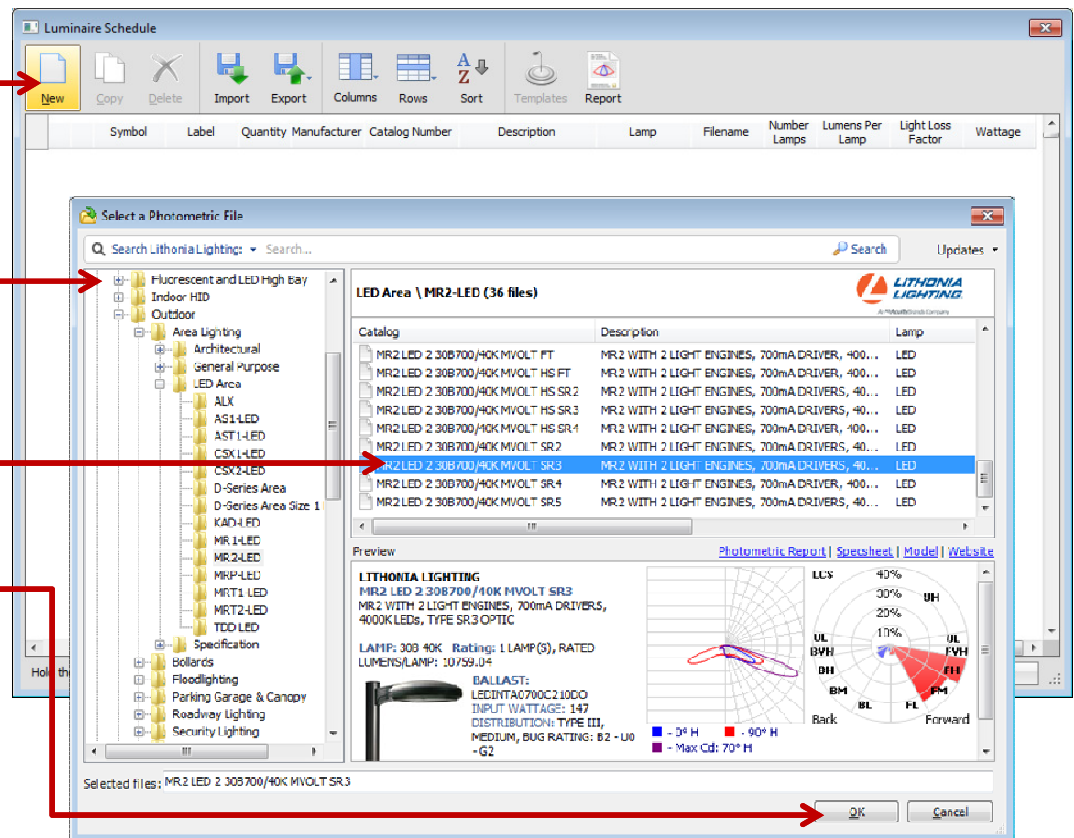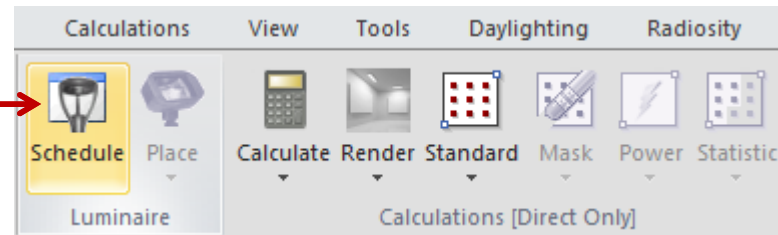
MR2 LED 2 30B700/40K MVOLT SR3
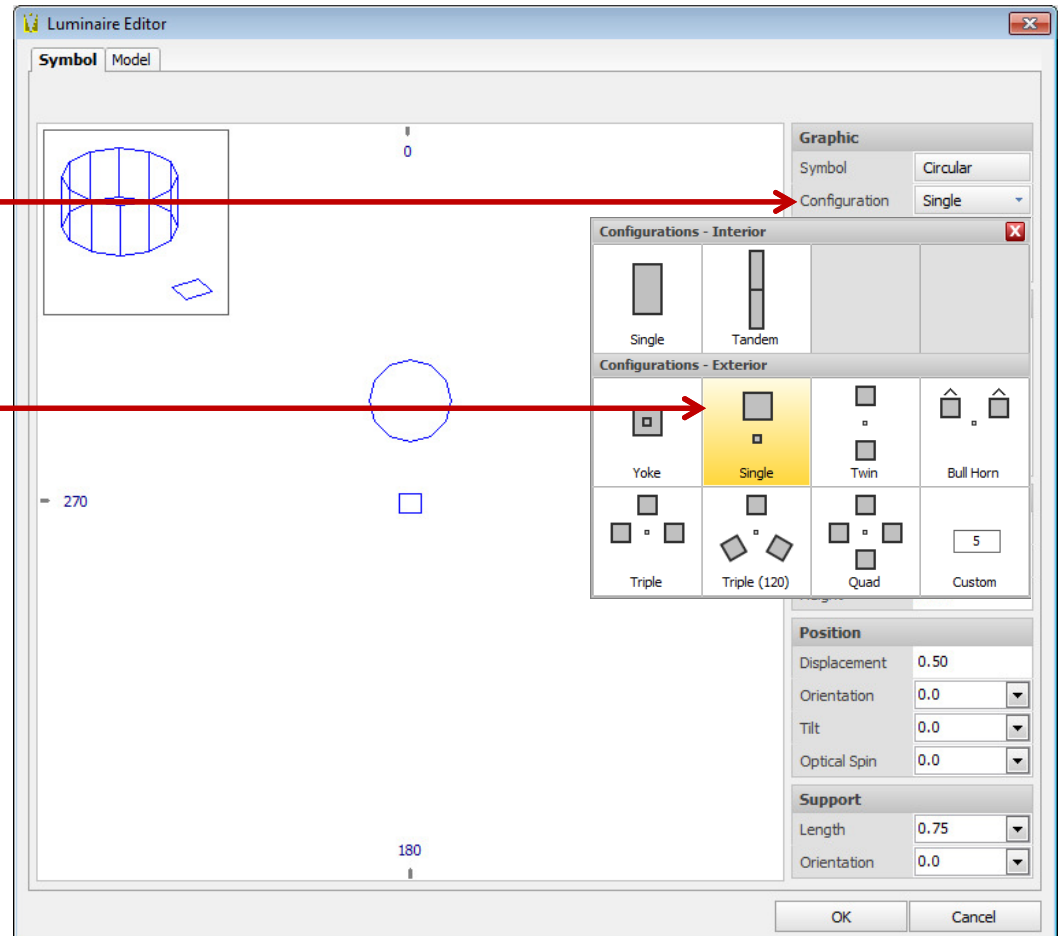
Parking Project

Change the luminaire symbol

1. Move your mouse over the luminaire symbol to display the **Edit** button

2. Click the **Edit** button to launch the Luminaire Editor

3. Click the **Symbol** button to launch the Symbol Gallery

4. In Symbol Gallery select the **Circular** symbol

Parking Project

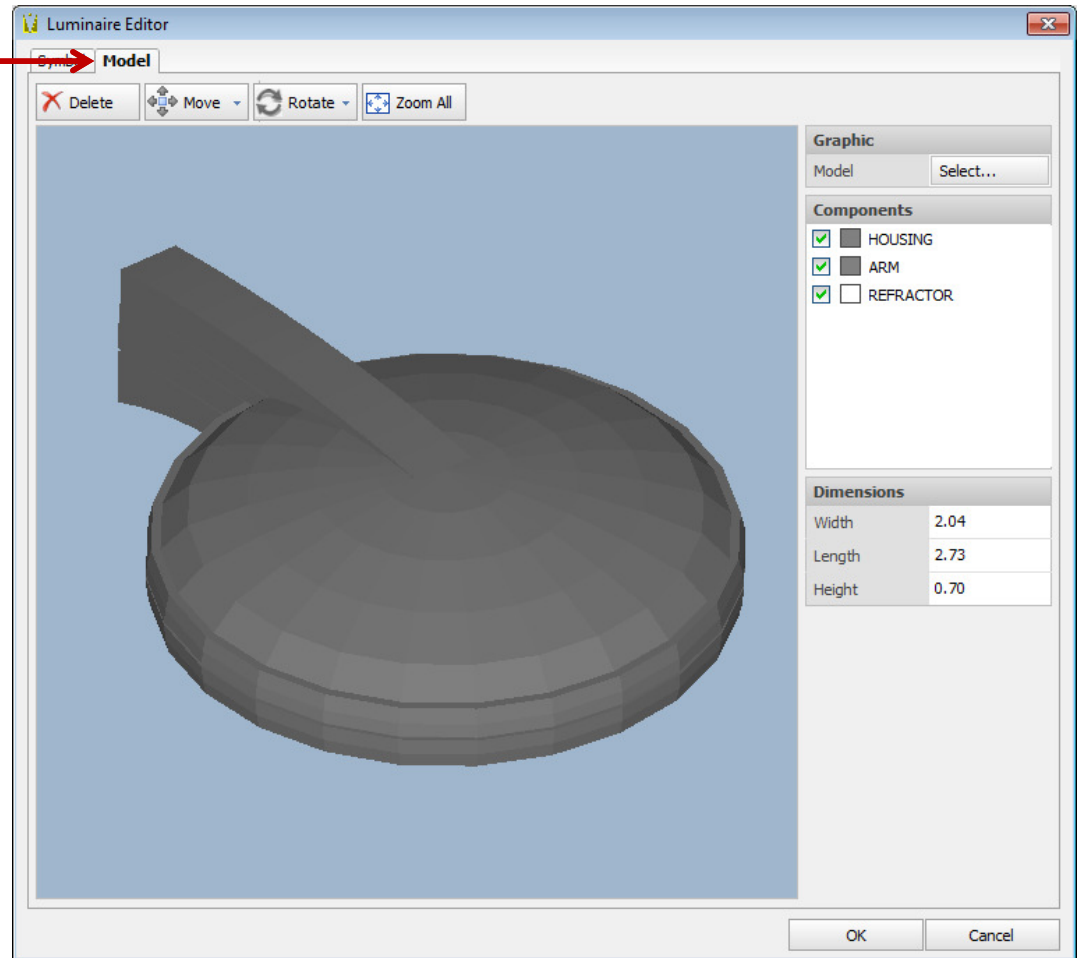Change the luminaire configuration

1. Click the **Configuration** button to launch the Configuration dialog

2. Select a **Single** configuration with a pole

3. Change the **Size Factor** to **3**.

Parking Project

View luminaire model

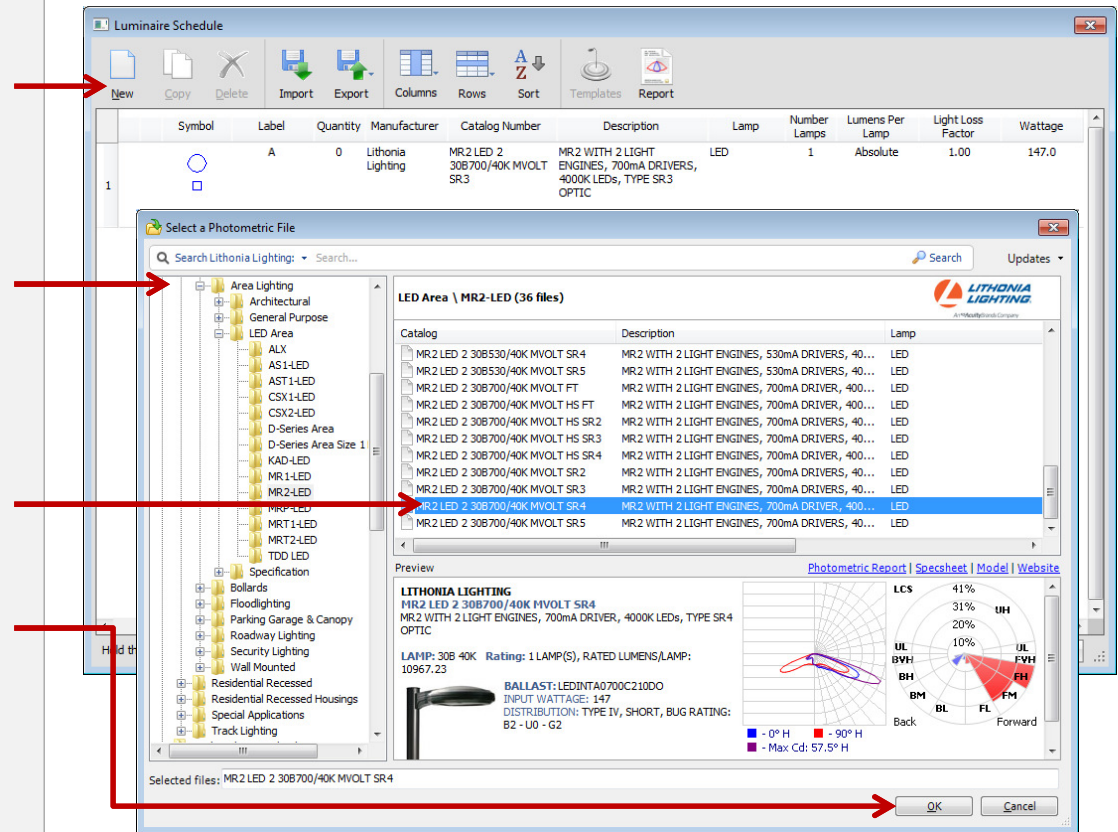1. Click the **Model** tab to view the Model Editor

Parking Project

Add another luminaire to the schedule

1. Click the **New** button to launch the Product Selection dialog

2. Navigate the Acuity Brands database to the **\Lithonia Lighting\Outdoor\Area Lighting\LED Area\MR2-LED** folder

3. Select **MR2 LED 2 30B700/40K MVOLT SR4**

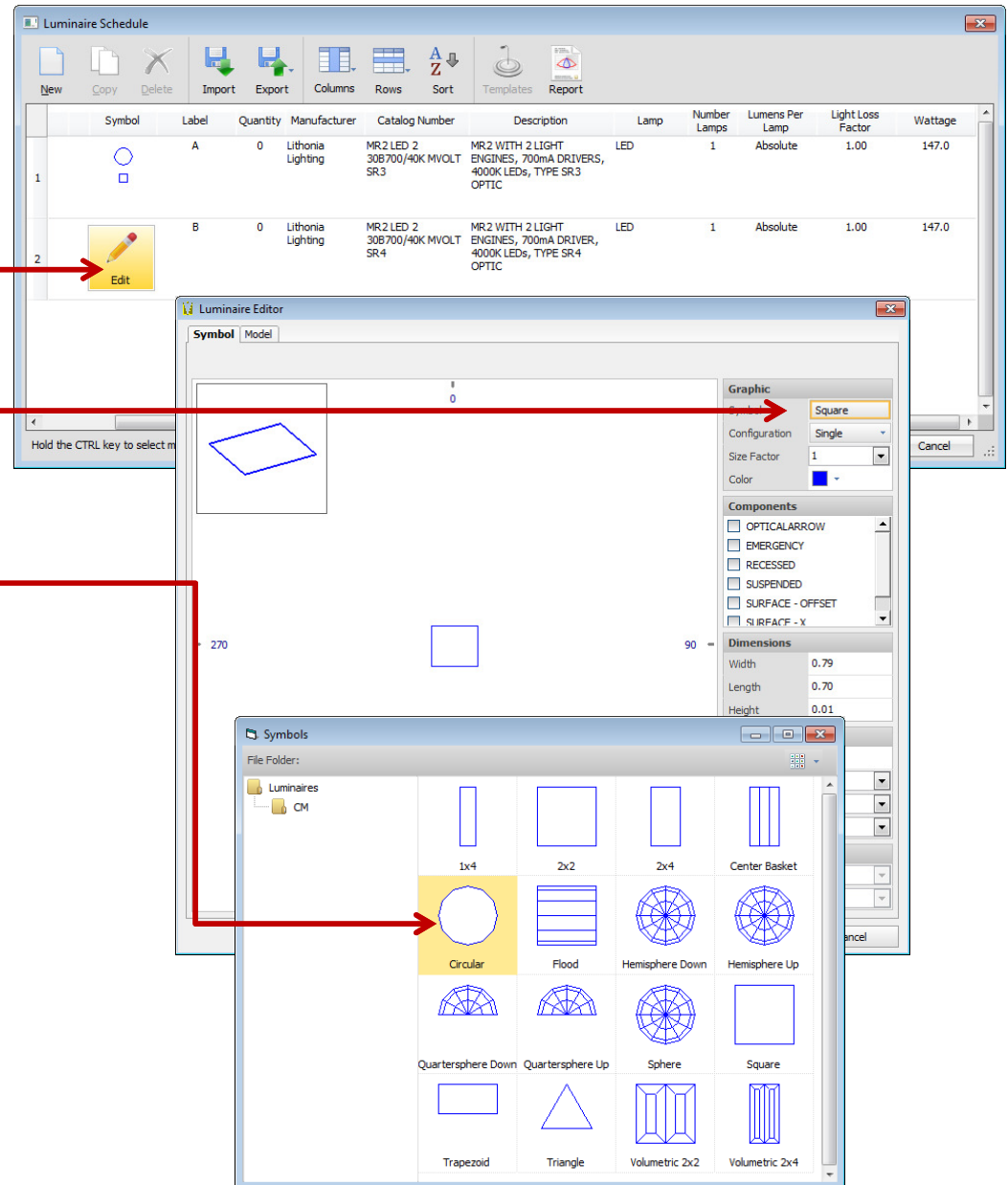4. Select **OK** to add to the luminaire schedule

MR2 LED 2 30B700/40K MVOLT SR4
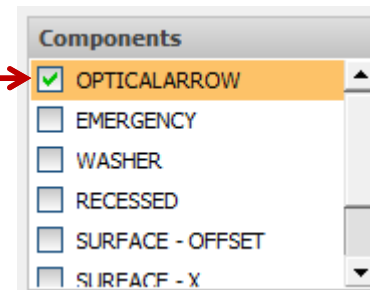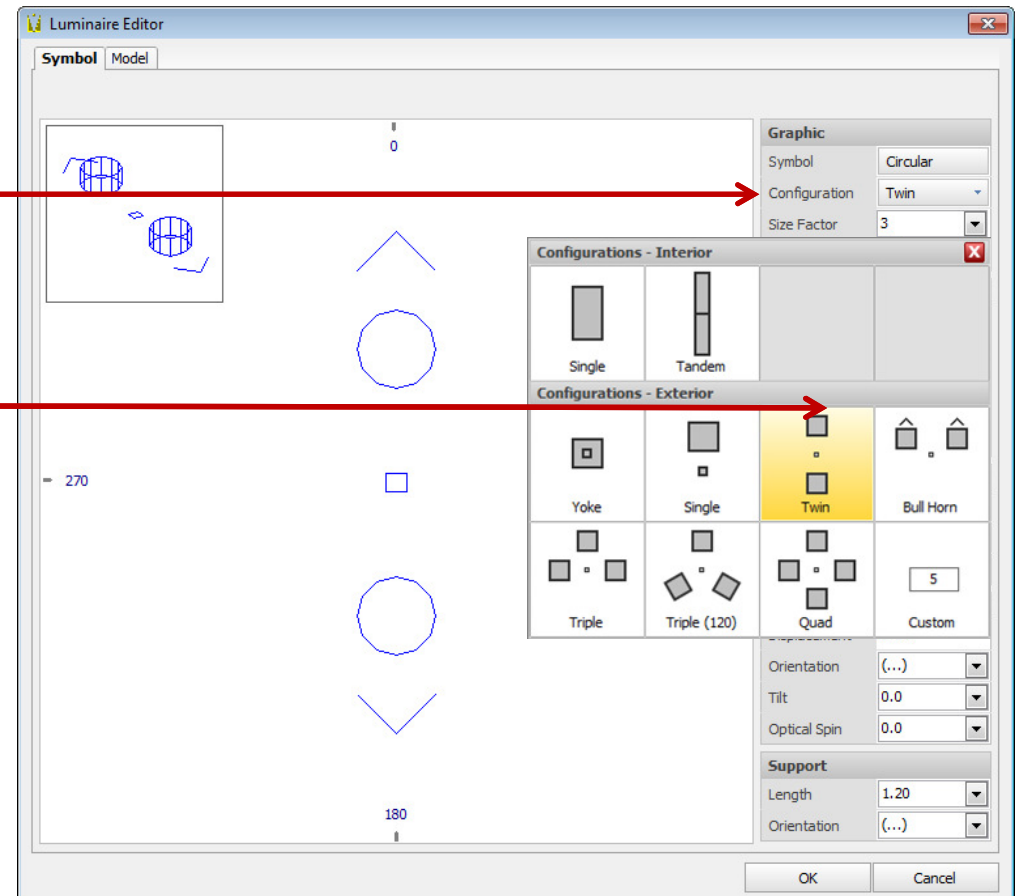
Parking Project

Change the luminaire symbol

1. Move your mouse over the luminaire symbol to display the **Edit** button

2. Click the **Edit** button to launch the Luminaire Editor

3. Click the **Symbol** button to launch the Symbol Gallery

4. In Symbol Gallery select the **Circular** symbol

Parking Project

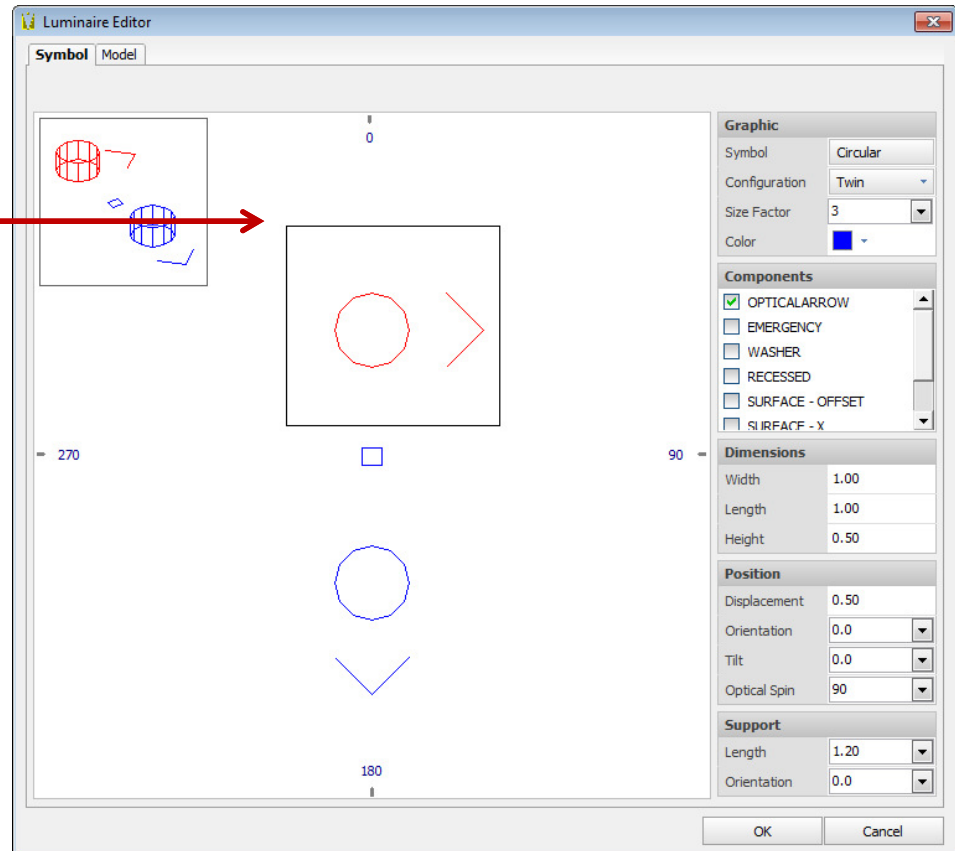Change the luminaire configuration

1. Click the **Configuration** button to launch the Configuration dialog

2. Select a **Twin** configuration with a pole

3. Change the **Size Factor** to **3**.

4. Turn on the **Optical Arrow** in the Components list
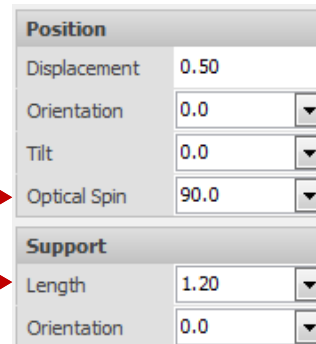
Parking Project

Change the luminaire configuration

1. Select the upper luminaire with a selection window (Tip: Left-click to pick the upper-corner of the selection window then move the mouse to contain the luminaire and left-click to pick the lower-right corner of the selection window)
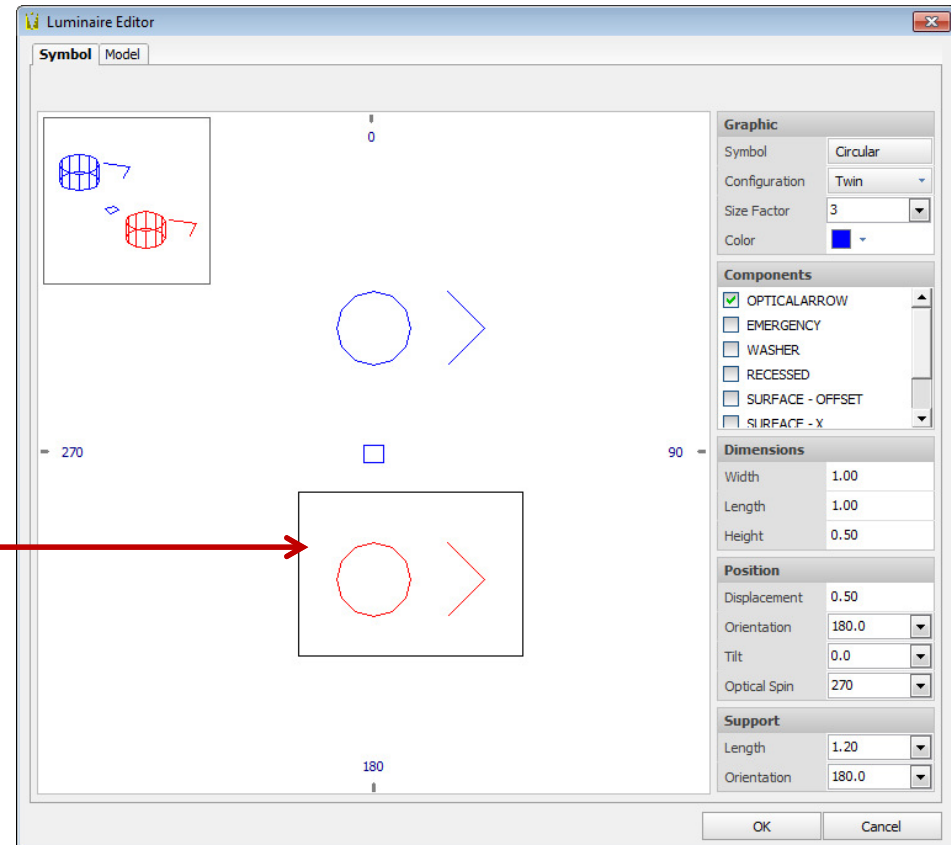
1. Select a **Optical Spin = 90**
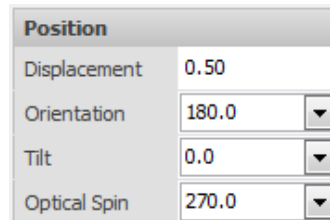
2. Change the **Support Length** to 1.20

Parking Project

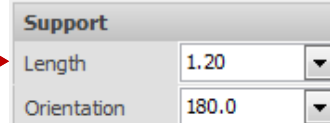Change the luminaire configuration

1. Select the lower luminaire with a selection window. (Tip: Left-click to pick the upper-corner of the selection window then move the mouse to contain the luminaire and left-click to pick the lower-right corner of the selection window)
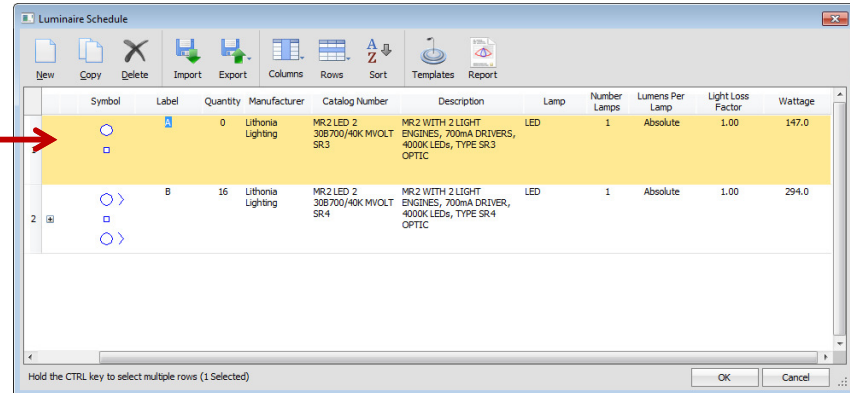

2. Change the **O**ptical Spin to **270**

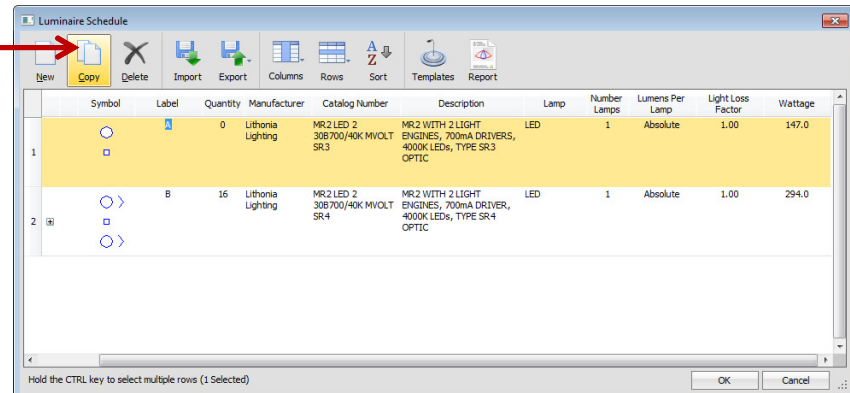3. Change the **Support Length** to **1.20**

Position		
Displacement	0.50	
Orientation	180.0	▼
Tilt	0.0	▼
Optical Spin	270.0	▼
Support		
Length	1.20	▼
Orientation	180.0	▼

Parking Project

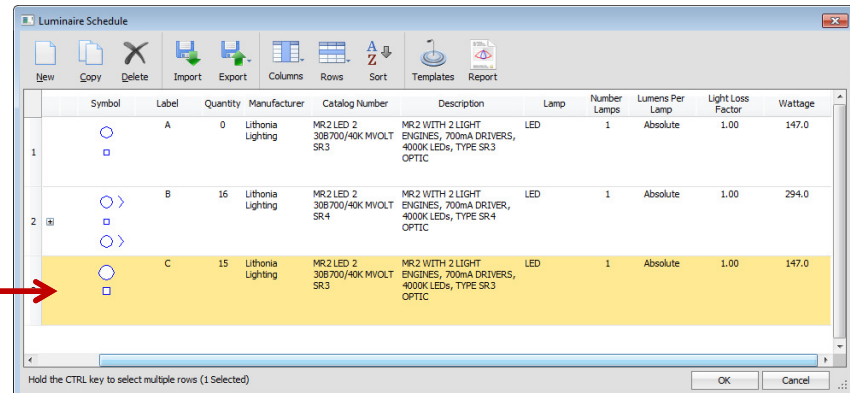**Copy a luminaire in the schedule**

1. Select the **A** luminaire in the schedule.

2. Select the **Copy** button on the toolbar

3. The **C** luminaire will be created in the schedule

Parking Project

Change the luminaire configuration

1. Move your mouse over the luminaire symbol to display the **Edit** button

2. Click the **Edit** button to launch the Luminaire Editor

3. Click the **Configuration** button to launch the Configuration dialog

4. Select a **Twin** configuration with a pole
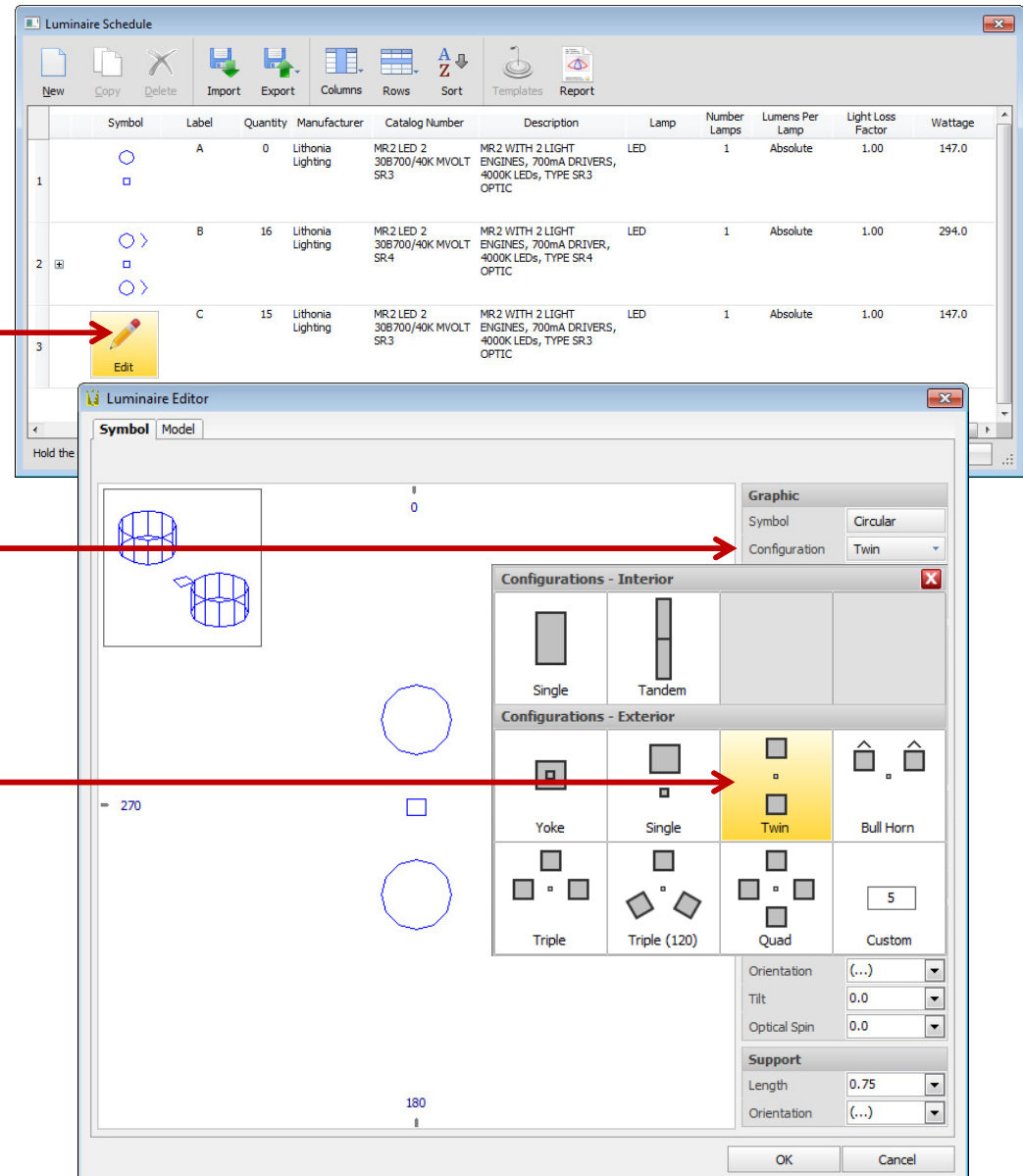
Parking Project

Create templates for all luminaires in the schedule

1. Select all luminaire by holding the CTRL key and left clicking each row.

2. Select the **Template** button to launch the Template dialog.

3. Click the checkboxes to turn on the .25fc and .5fc template lines. Change the color of the .25fc to blue by clicking the arrow next to the color.

4. Select **OK** on the Template dialog**.**

5. The template icon will now be displayed next to the luminaire symbols
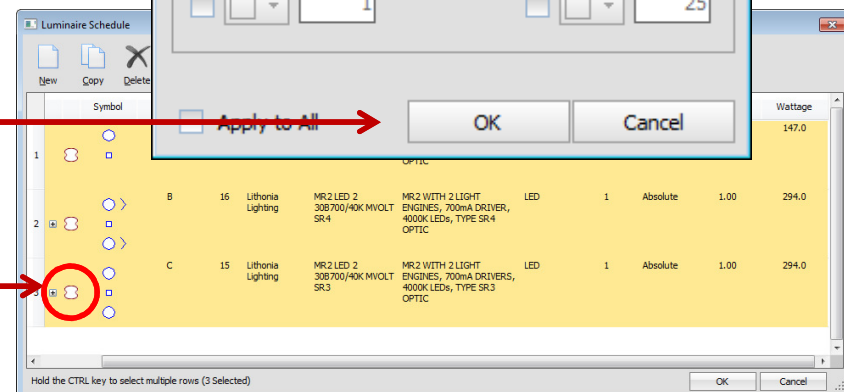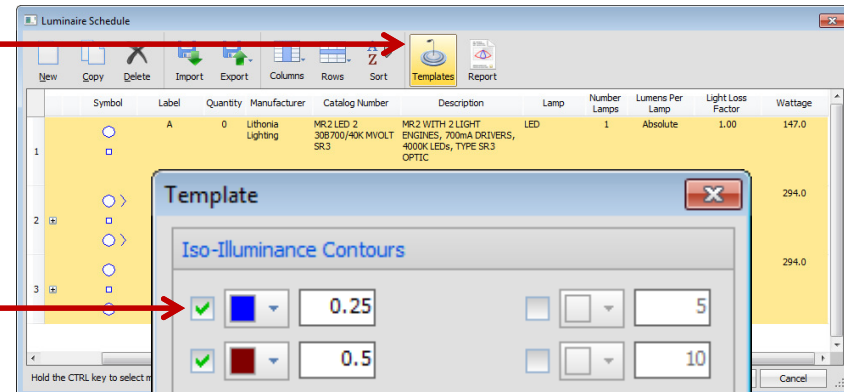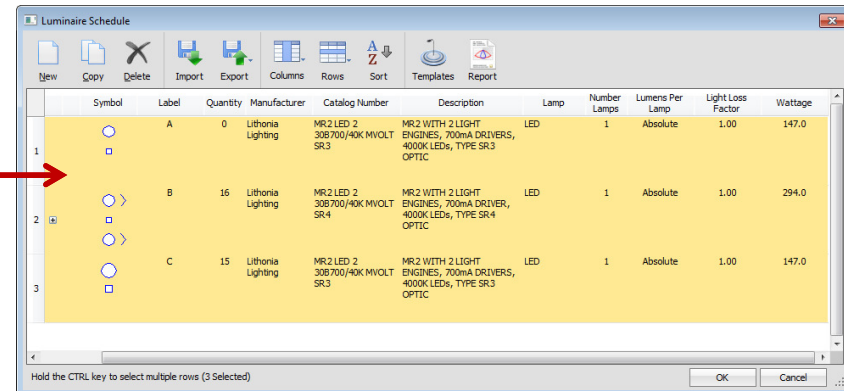
Parking Project

Place a luminaire in the main parking area

1. Select the **Place** command on the **Home** tab. The dynamic Properties tab for the luminaire commands will be displayed on the ribbonbar.

2. Left-click the dropdown arrow button on the **Luminaire List.**

3. Select the **C** luminaire to make it the active luminaire.

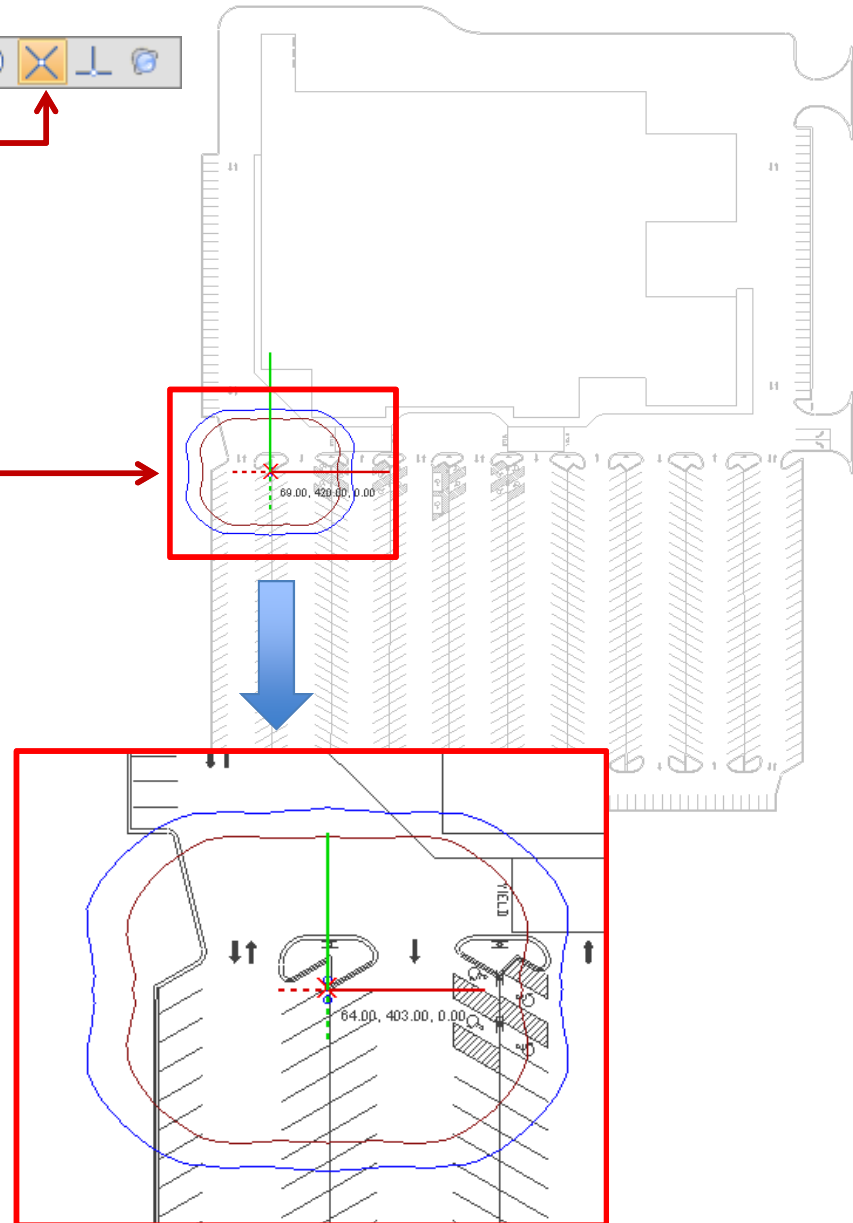4. Enter a Mounting Height = **30ft.**
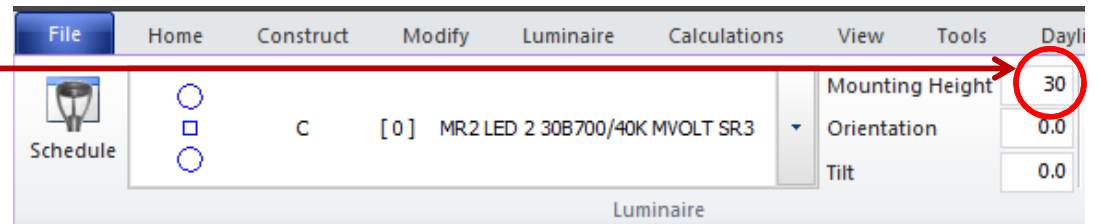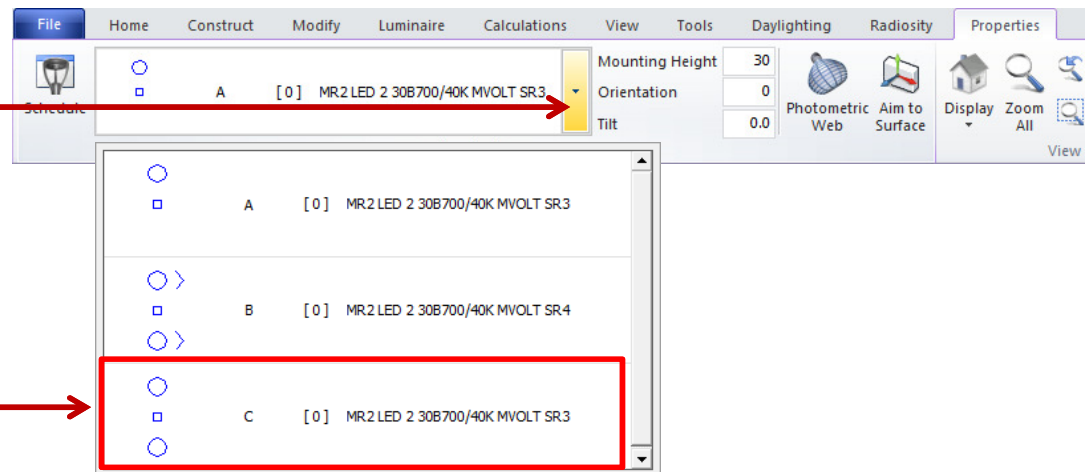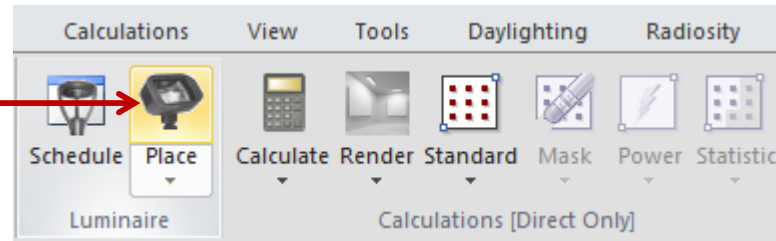
Parking Project

Place a luminaire in the main parking area. Minimum illuminance criteria for the main parking area is .5fc.

1. Turn ON the **Intersection** osnap to assist selecting the intersection of the parking lines.

2. Locate the **C** luminaire at the north side of the main parking area near the first island.
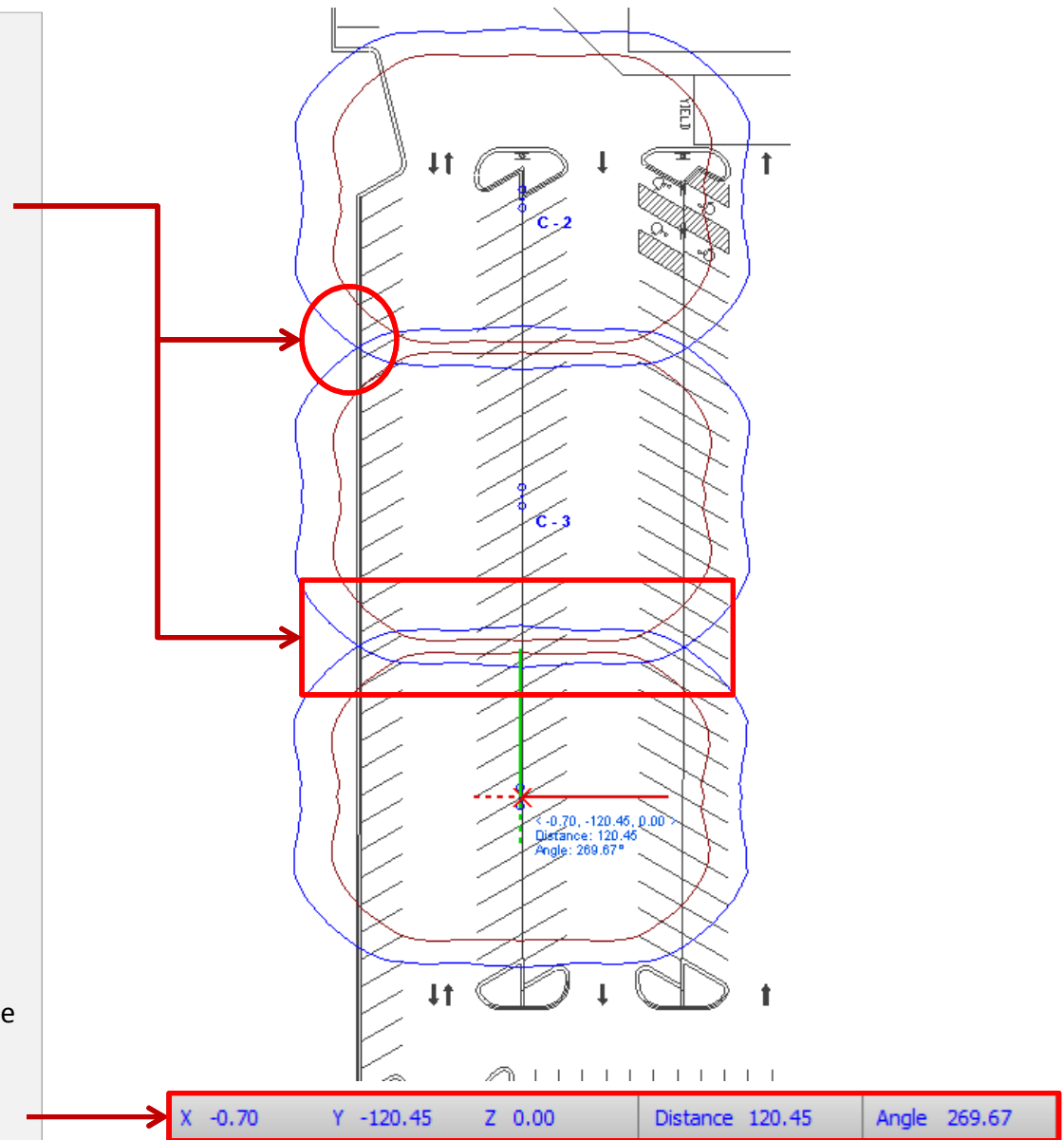
Parking Project

Place additional luminaires in the main parking area.

1. As you locate the next luminaire, verify that the **.25fc** (blue) template lines properly overlap to guarantee a **.5fc** minimum between luminaires. (Tip: Locate the luminaires on the intersection of the parking lines)

2. While placing luminaires the statusbar displays the relative coordinates, distance and angle from the last placed luminaire.

| X | -0.70 | Y | -120.45 | Z | 0.00 | Distance | 120.45 | Angle | 269.67 |

Parking Project

Place a luminaire on the south perimeter of the main parking area.

1. Select the **A** luminaire from Luminaire List to place at the south perimeter.

2. If the **.25fc** template lines does not overlap then another luminaire type is required.
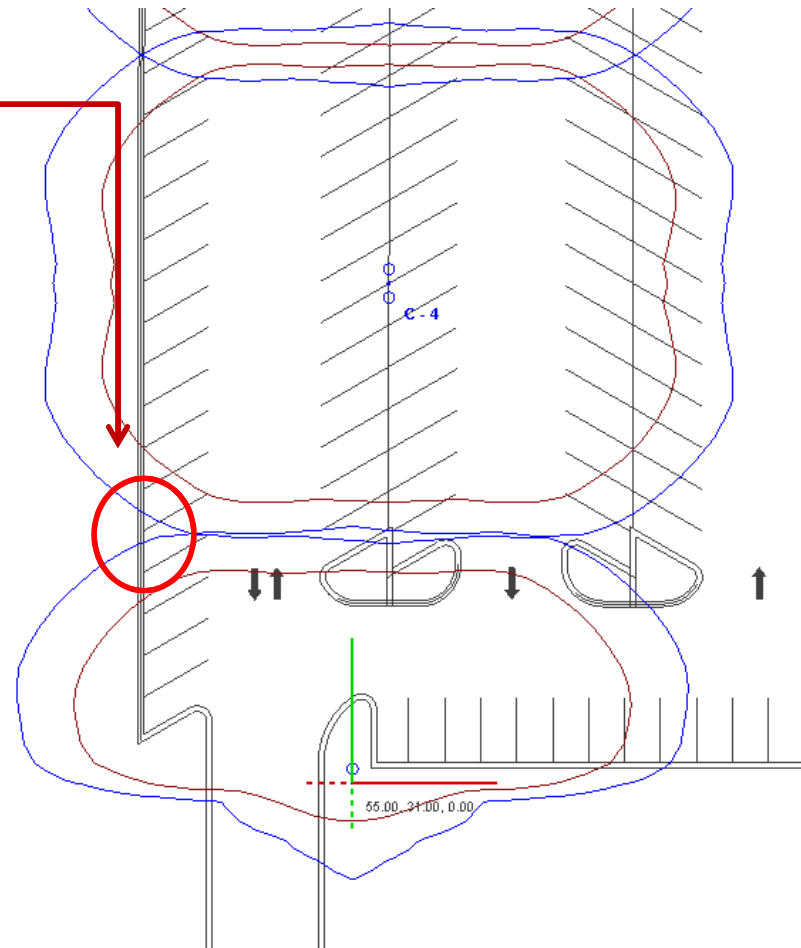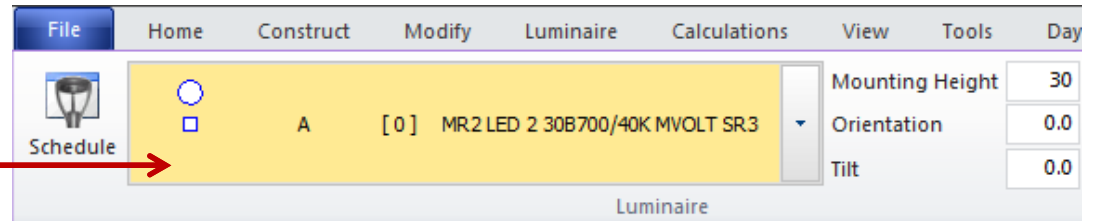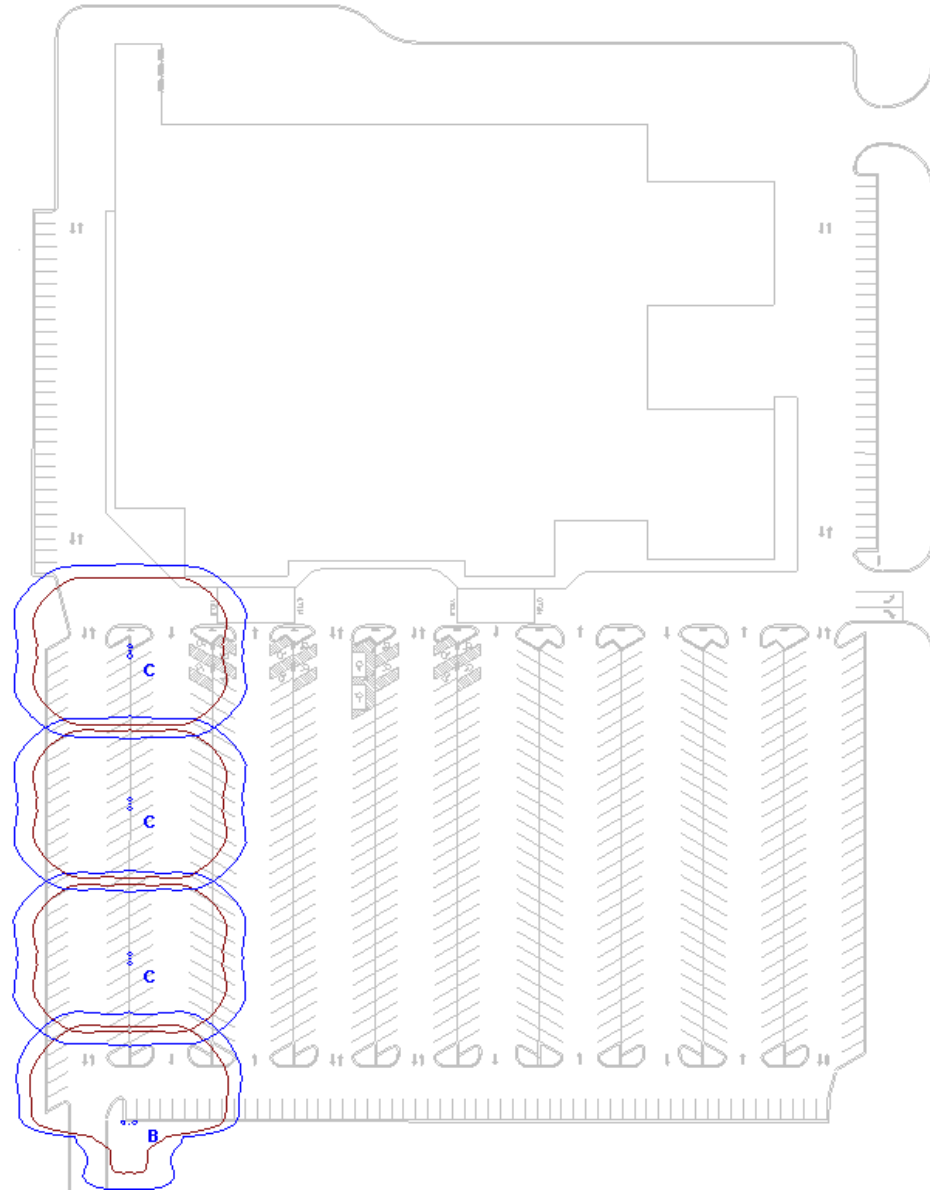
Parking Project

Place a luminaire on the south perimeter of the main parking area.

1. Select the **B** luminaire from Luminaire List to place at the south perimeter.

2. If the **.25fc** template lines overlap then the a **.5fc** minimum criteria will be meet.
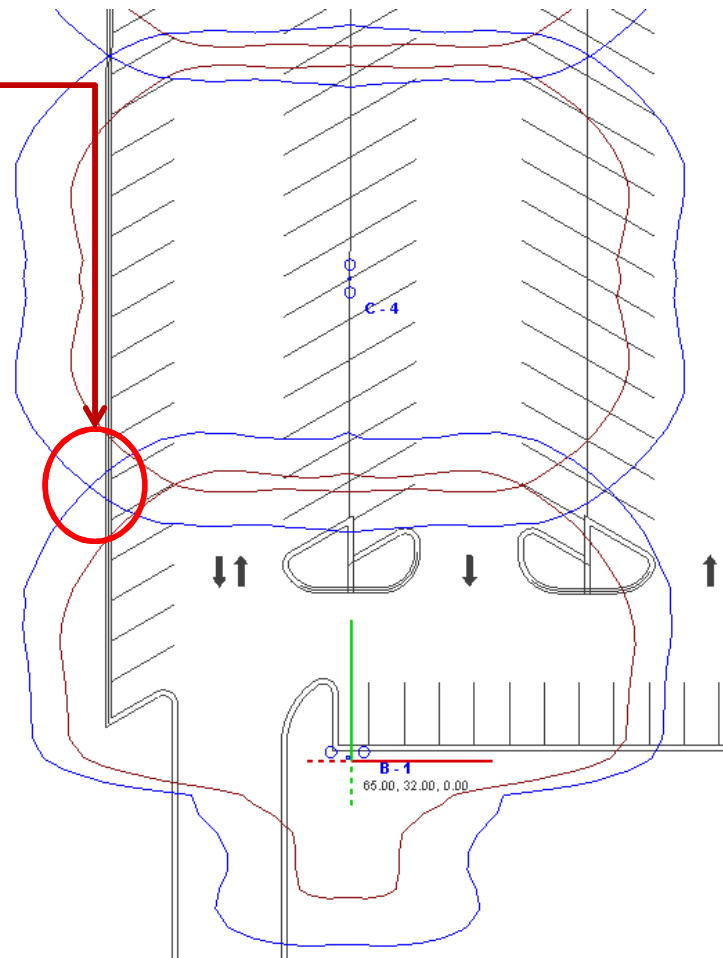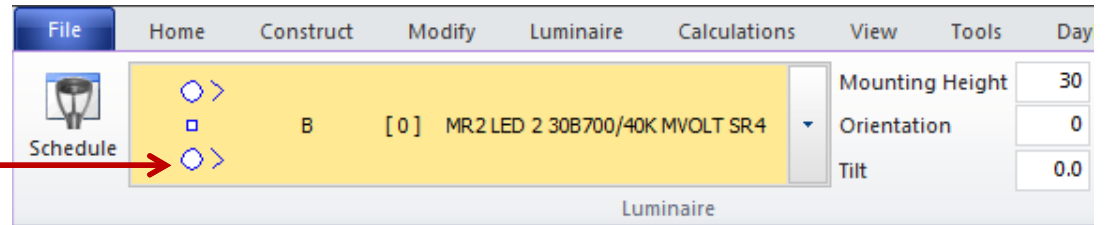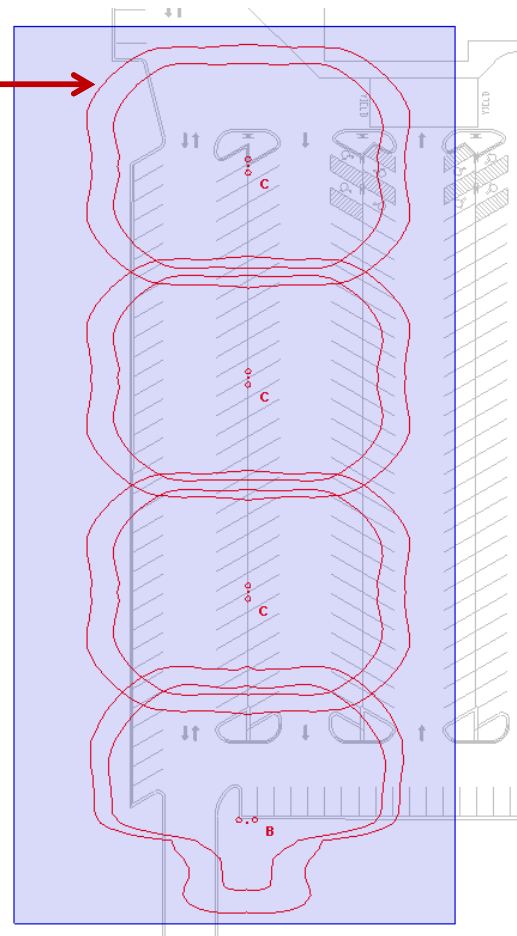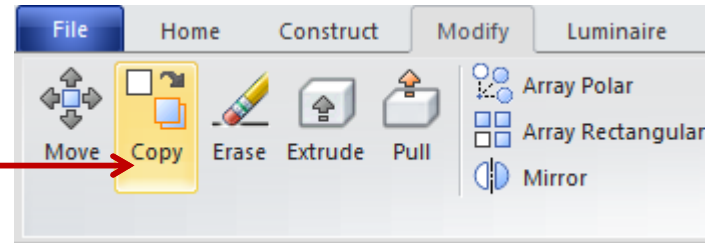
Parking Project

Status Check: The design should look like the drawing to the right

Parking Project

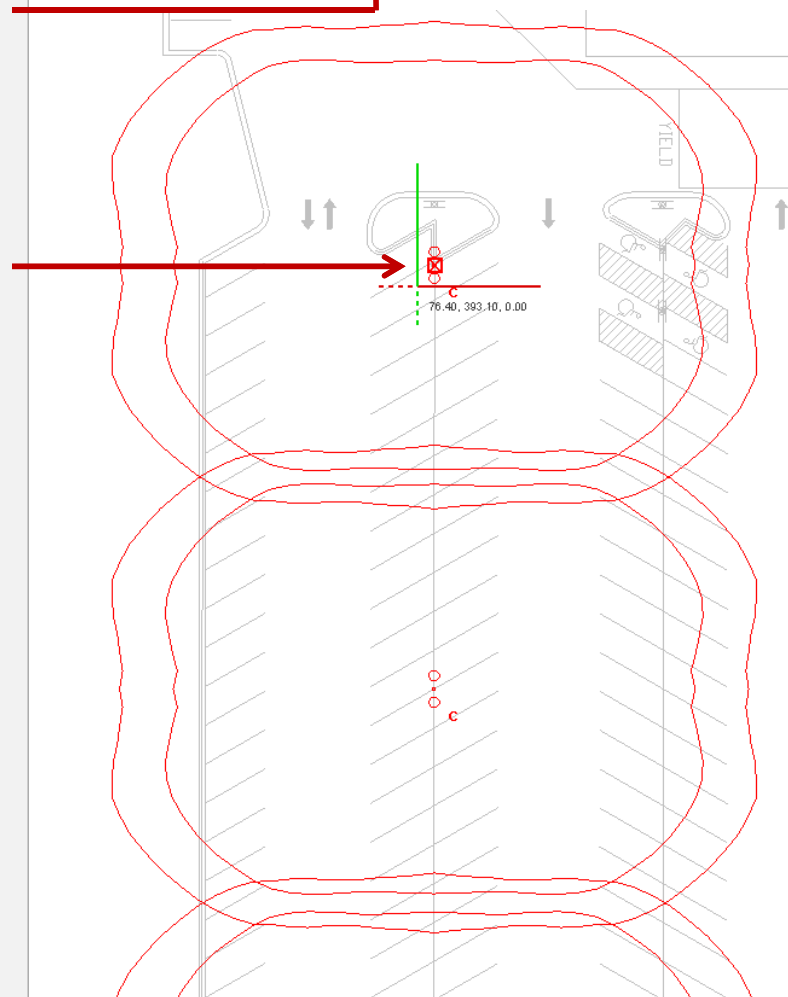Copy luminaires into the main parking area.

1. Select the **Copy** command from the **Modify** tab.

2. Select the **4 luminaires** with a selection window. All luminaires will turn red to indicate they are selected.

Parking Project

Copy luminaires into the main parking area.

1. Turn ON only the **Luminaire** osnap to locate the center of an existing luminaire.

2. Select the center of the luminaire as the **Base Point** for copying.

76.40, 393.10, 0.00

Copy - Base Point (X Y Z) :

Parking Project
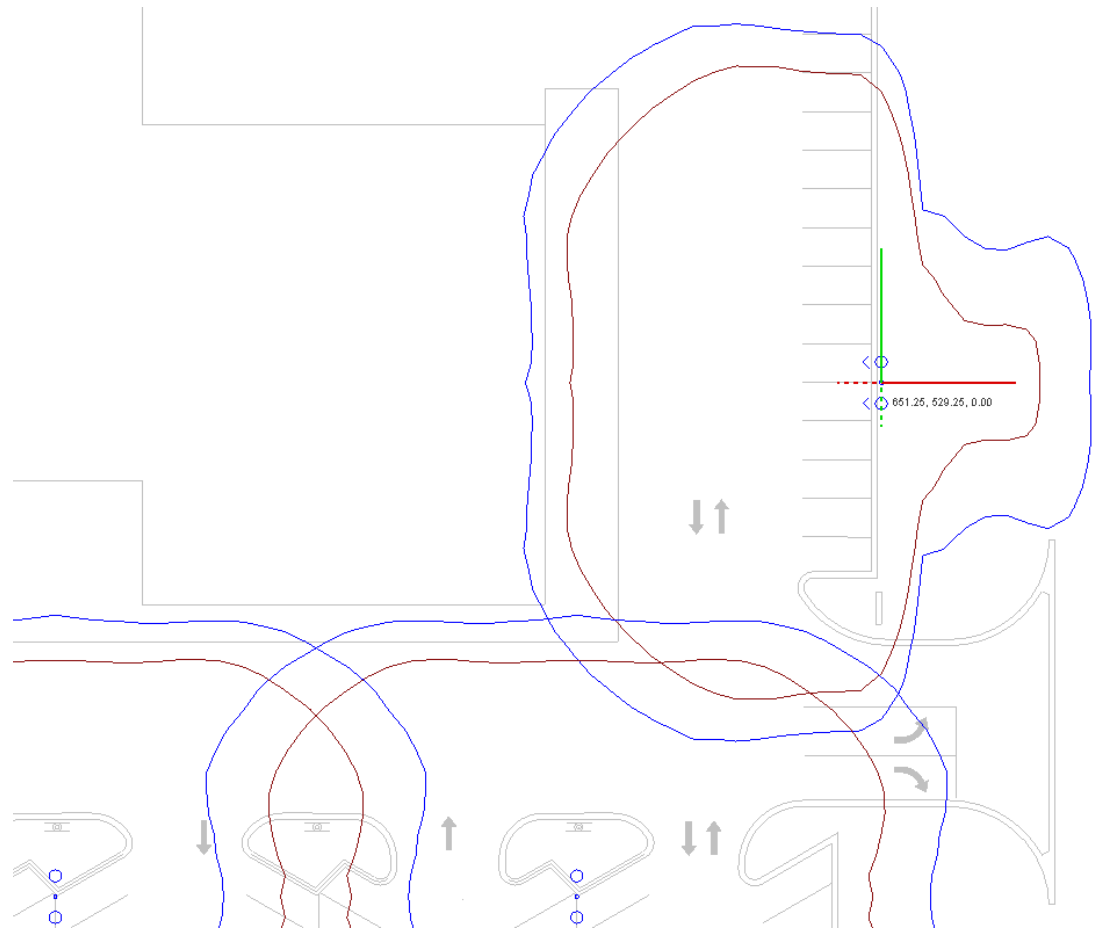
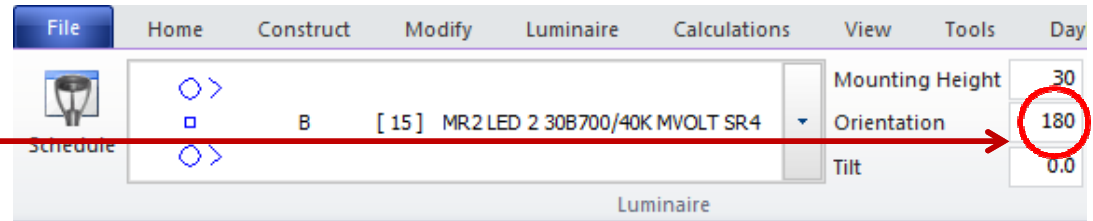Copy luminaires into the main parking area.

1. Turn on the **Orthogonal** snap to assist with copying the luminaires.

2. Continue to copy luminaires until the main parking area meets the .5fc minimum (Tip: You may need to zoom in with the mouse-wheel to place the luminaires on the parking lines
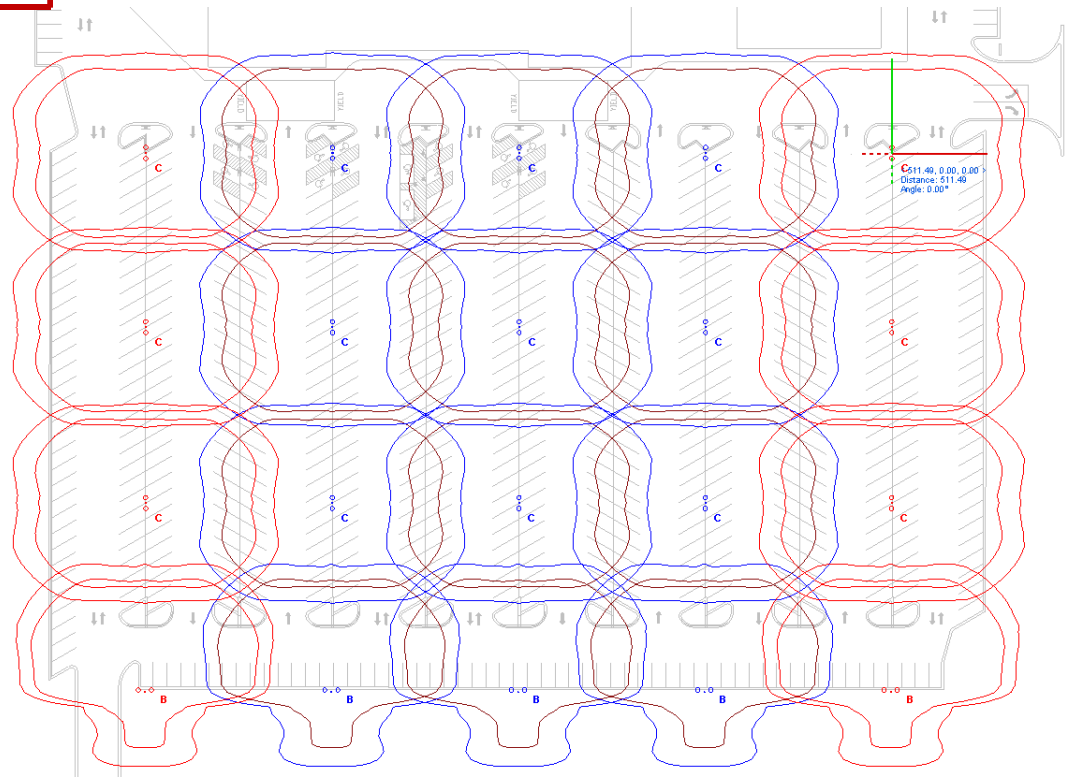
Parking Project

Place luminaires in the parking areas and drive lane around the building.

1. Select the **Place** command and then select the **B** luminaire from the Luminaire List

2. Change the **Orientation** to **180** so the luminaire is pointing towards the building.

3. Continue placing the **B** luminaires around the perimeter, changing the orientation to point towards the building
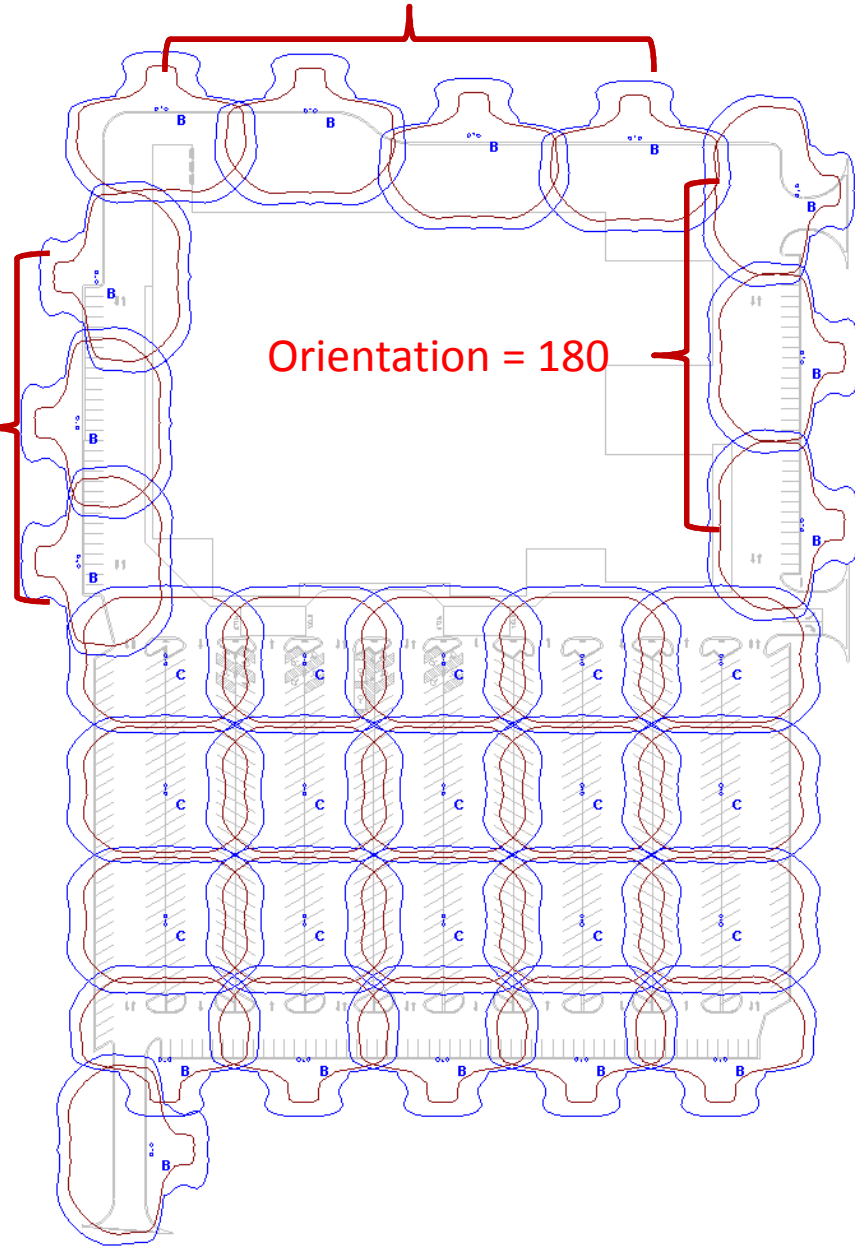
Parking Project

Place luminaires in the parking areas and drive lane around the building.

1. Your design should look similar to the drawing to the right.

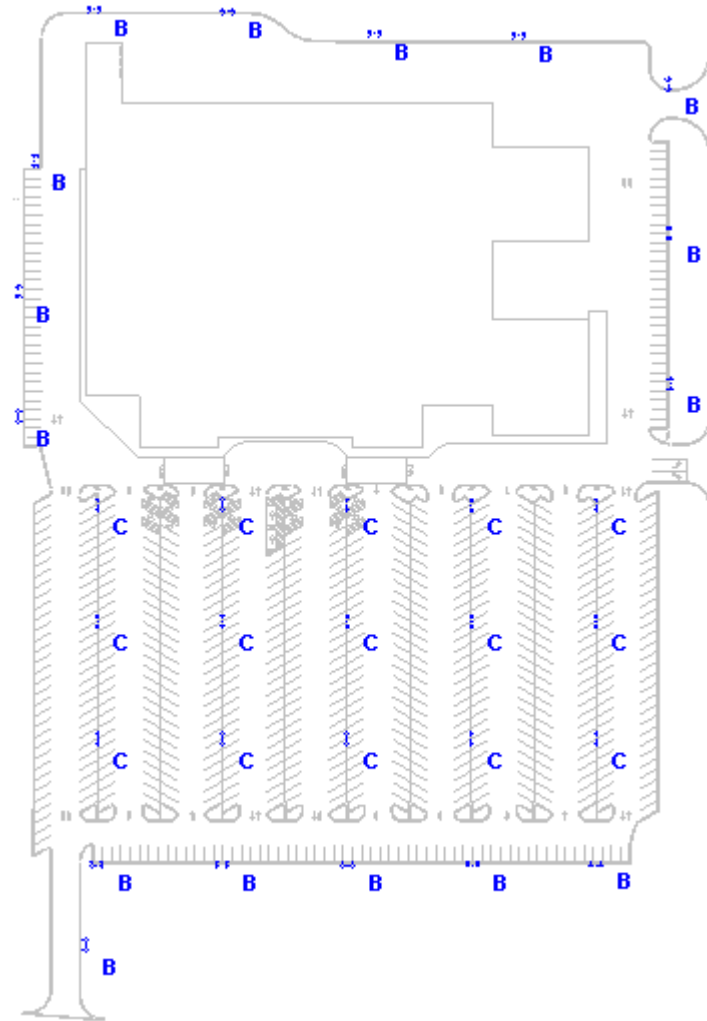Orientation = 90
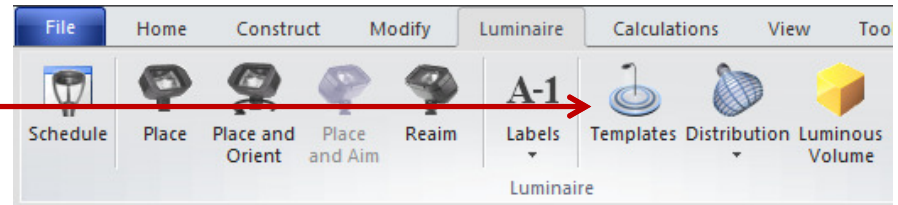
Orientation = 180

Orientation = 270

Parking Project
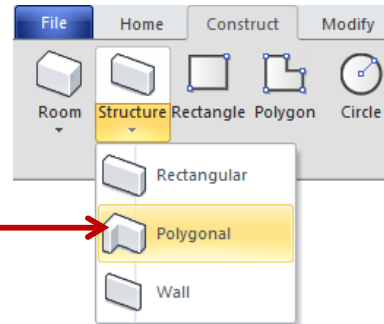
Construct the building

1. Before starting the construction of the building, turn off the luminaire templates to limit screen clutter.
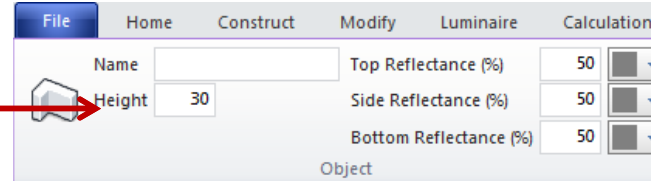
Parking Project

Construct the building

1. Select the **Polygonal Structure** command
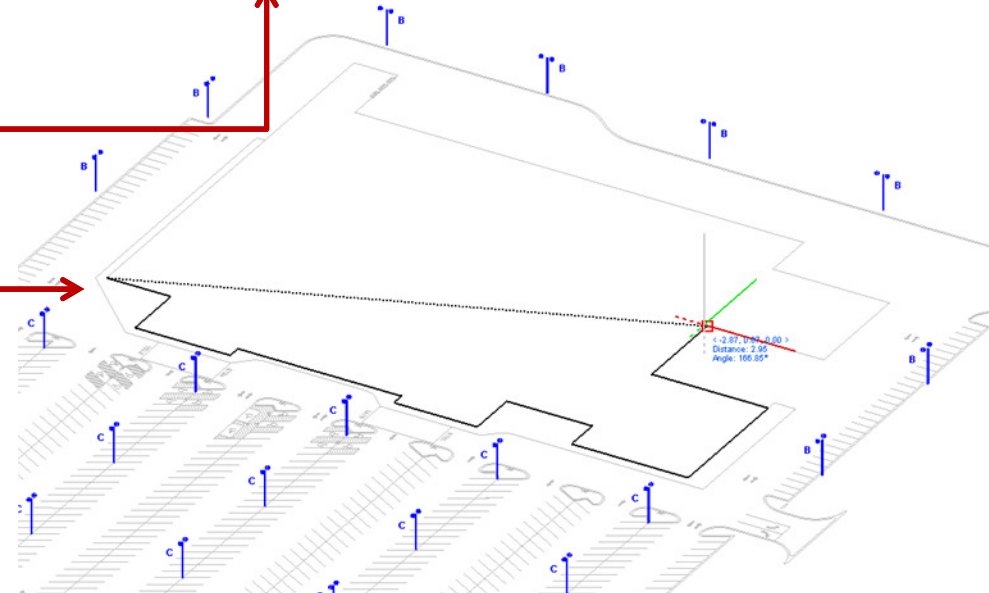
2. Enter a height of **30ft**.

3. Check that the **Orthogonal** snap is OFF

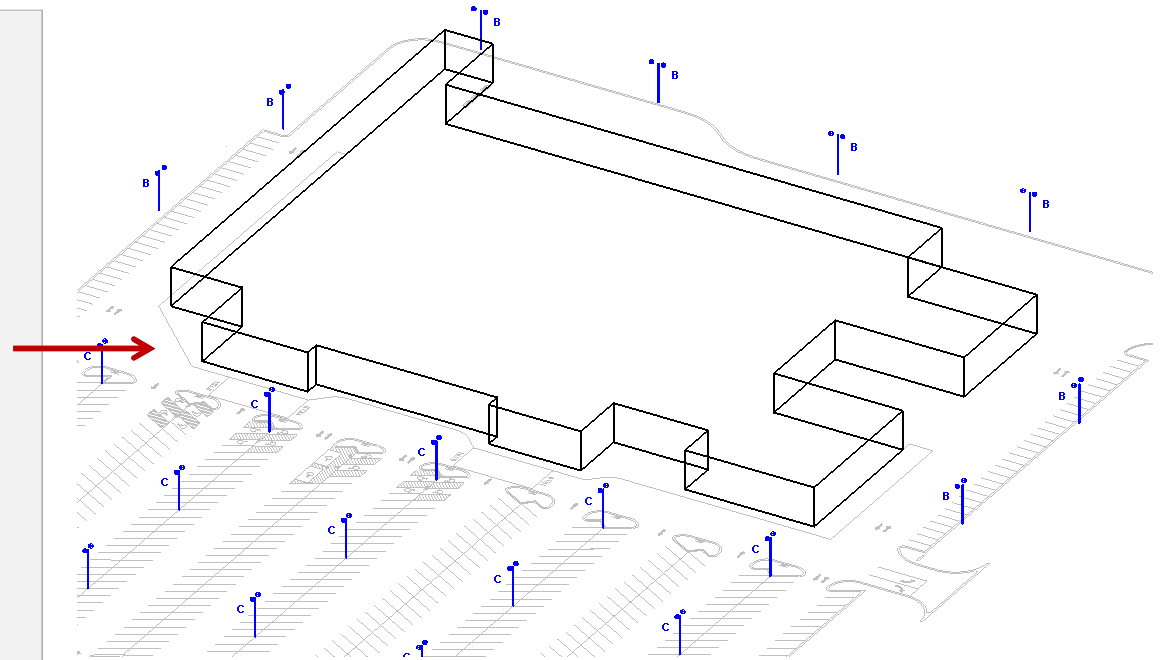4. Turn ON only the **Endpoint** snap

5. Start tracing the base of the building

Parking Project

Construct the building

1. Right-click to close the building when you have reached the last coordinate connected to the first coordinate.

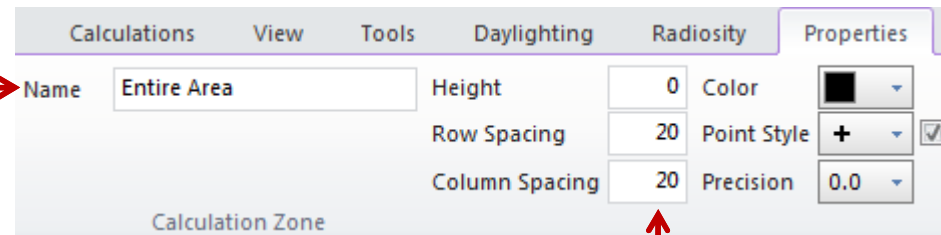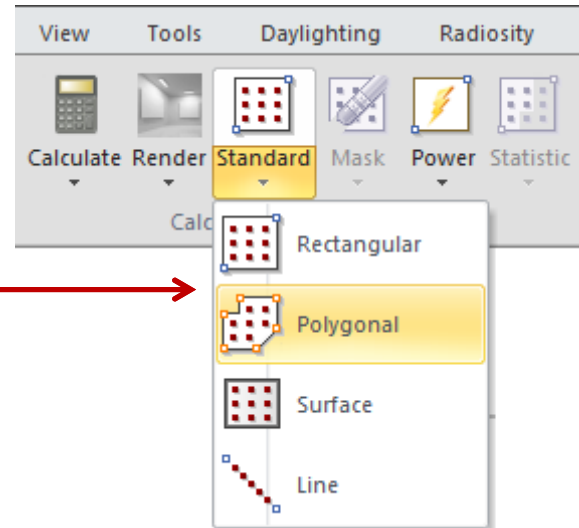2. The building should look like the drawing to the right.

Parking Project

Insert a Calculation Zone for entire parking area

1. Select the **Polygonal Calculation Zone** command to construct a calculation for the entire parking area.
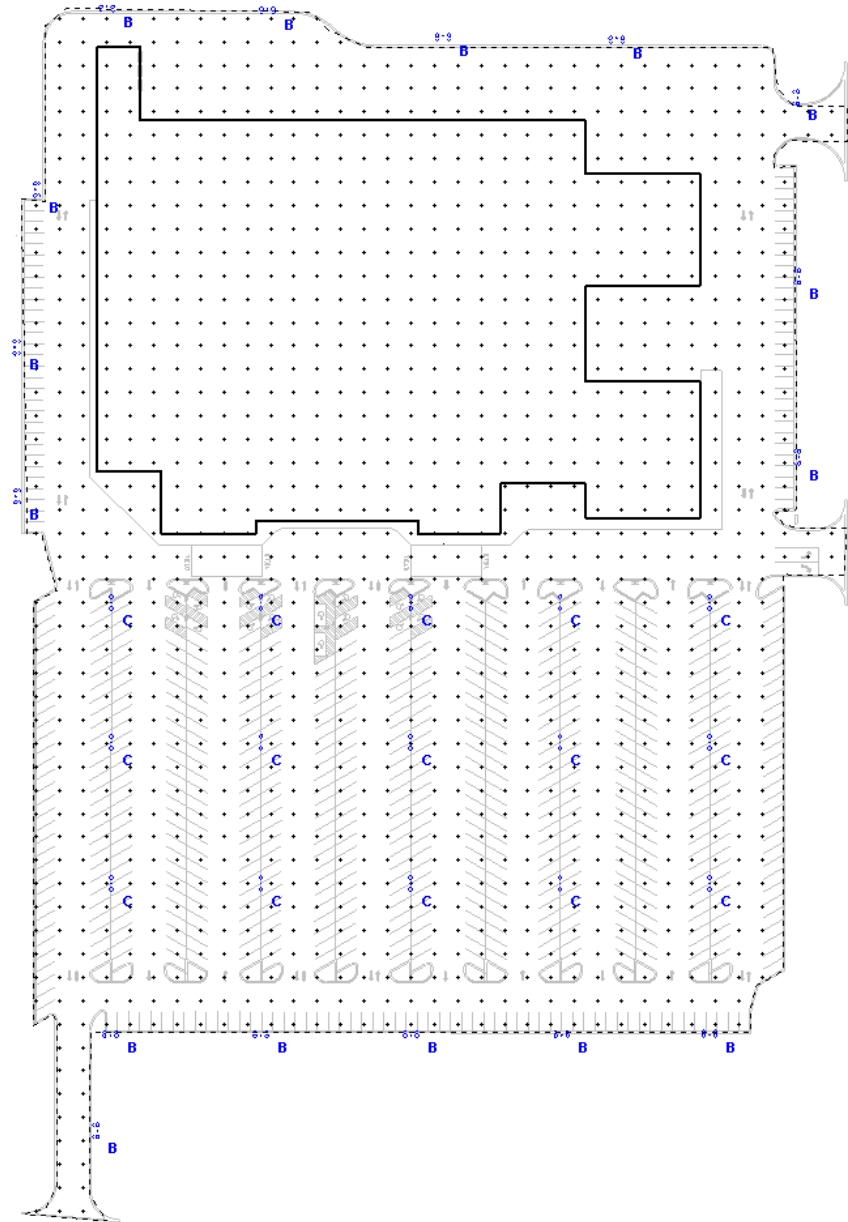
2. Enter a Name of **Entire Area**.

3. Enter **Row Spacing** and **Column Spacing** of **20**.

Parking Project

Insert a Calculation Zone for entire parking area

1. Construct a polygonal calculation zone as displayed in the drawing to the right.
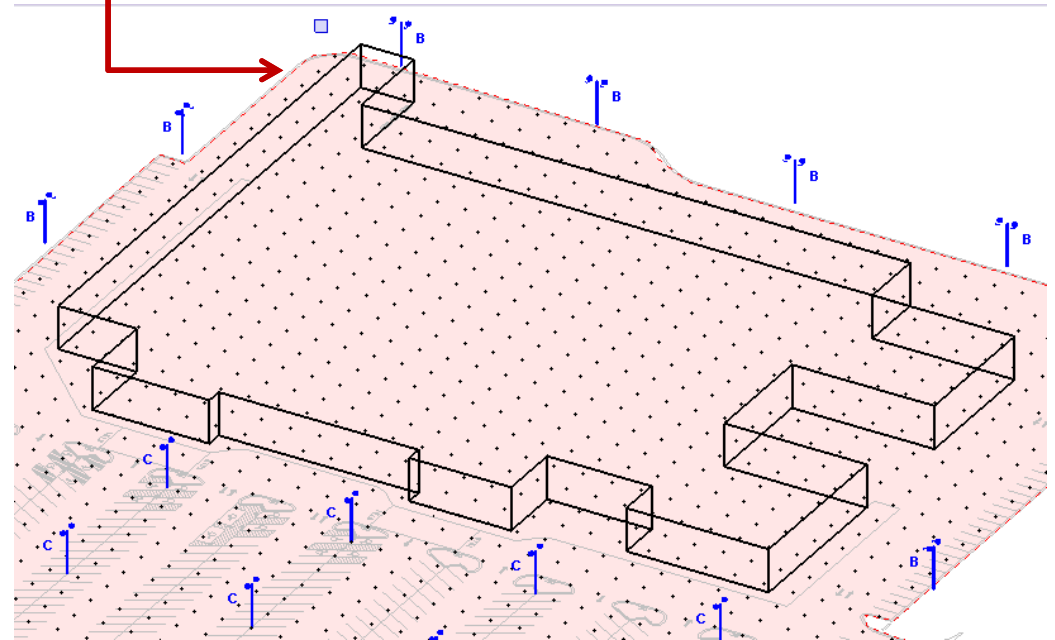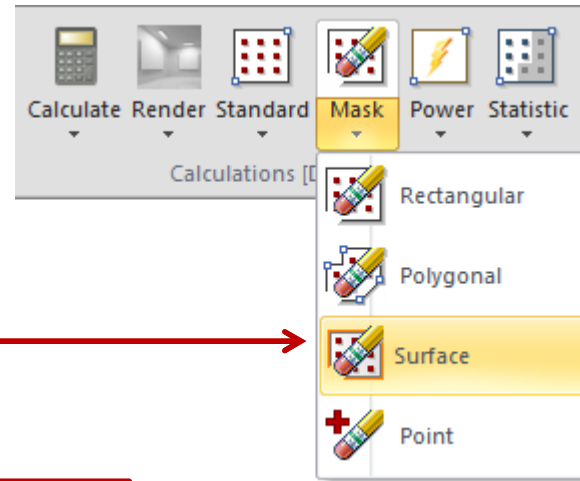
Parking Project

Mask the Calculation Zone under the building

1. Select the **Mask Surface** command (Note: A Mask Zone can only be applied to single calculation zone, it cannot span multiple calculation zones)

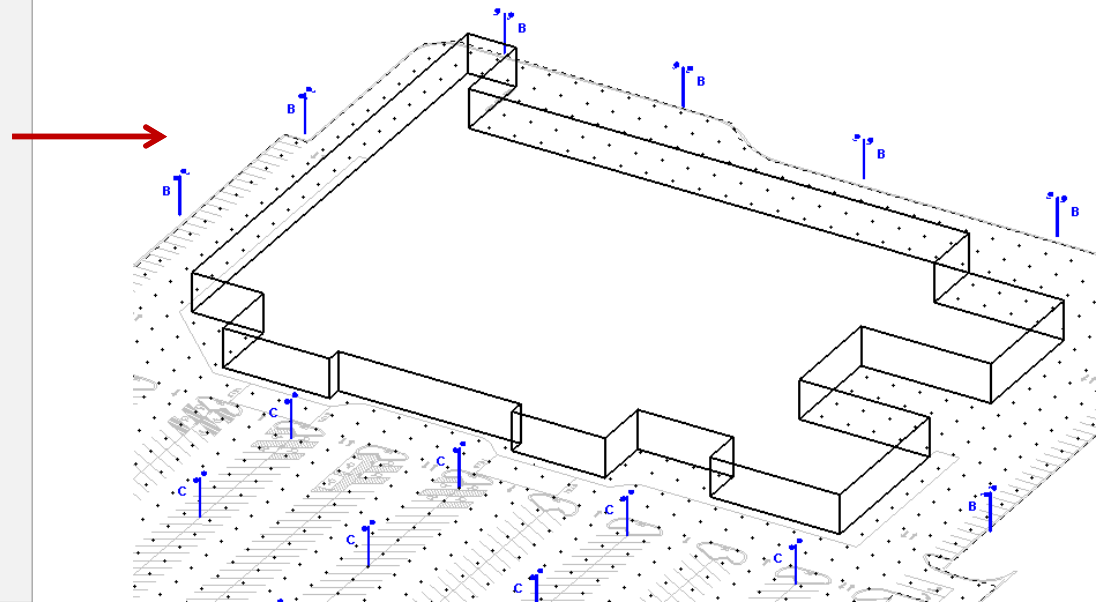2. Select the **Calculation Zone** by left-clicking a point or the edge.

Parking Project

Mask the Calculation Zone under the building

1. Select the floor of the building as the surface to use for the mask zone. Right-click to complete command.
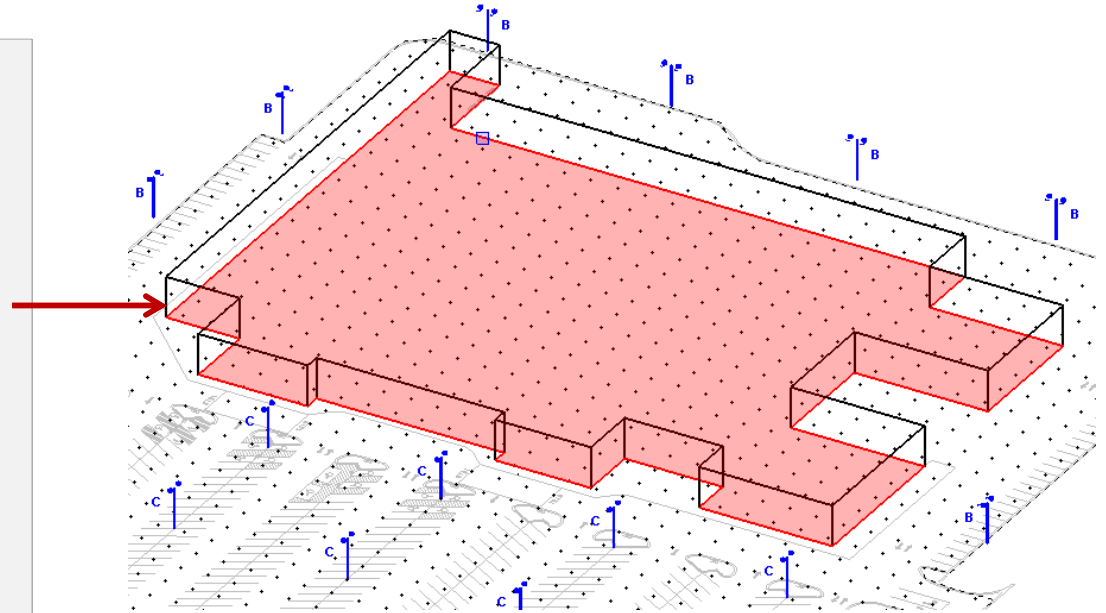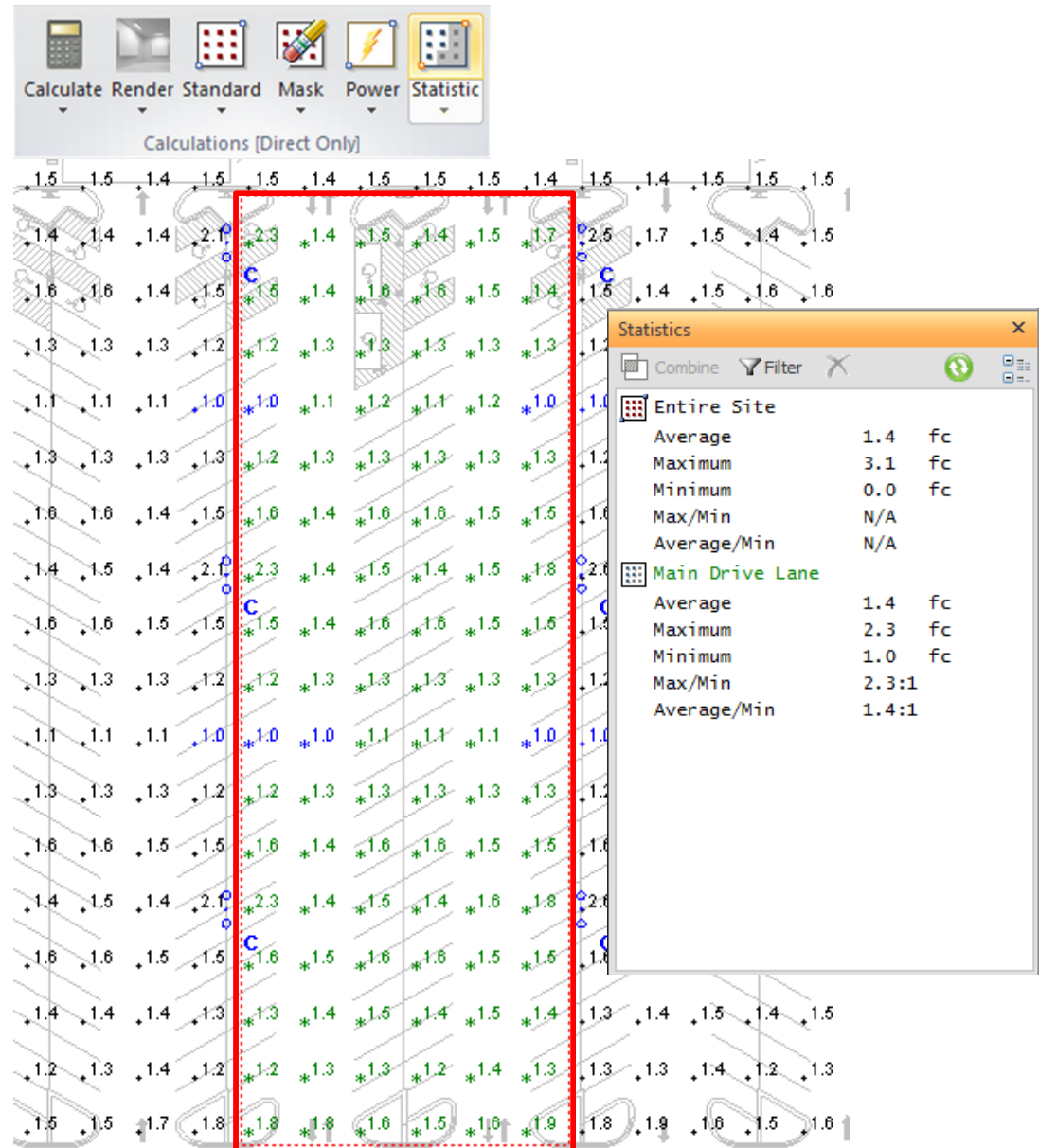

2. The building should look like the drawing to the right.

Parking Project

Insert Statistical Zone in the drive lane

1. Select the **Statistical Zone - Rectangular**

2. Select the **Entire Area** calculation zone

3. Draw a **Statistical Zone** to include the two middle drive lanes

Parking Project

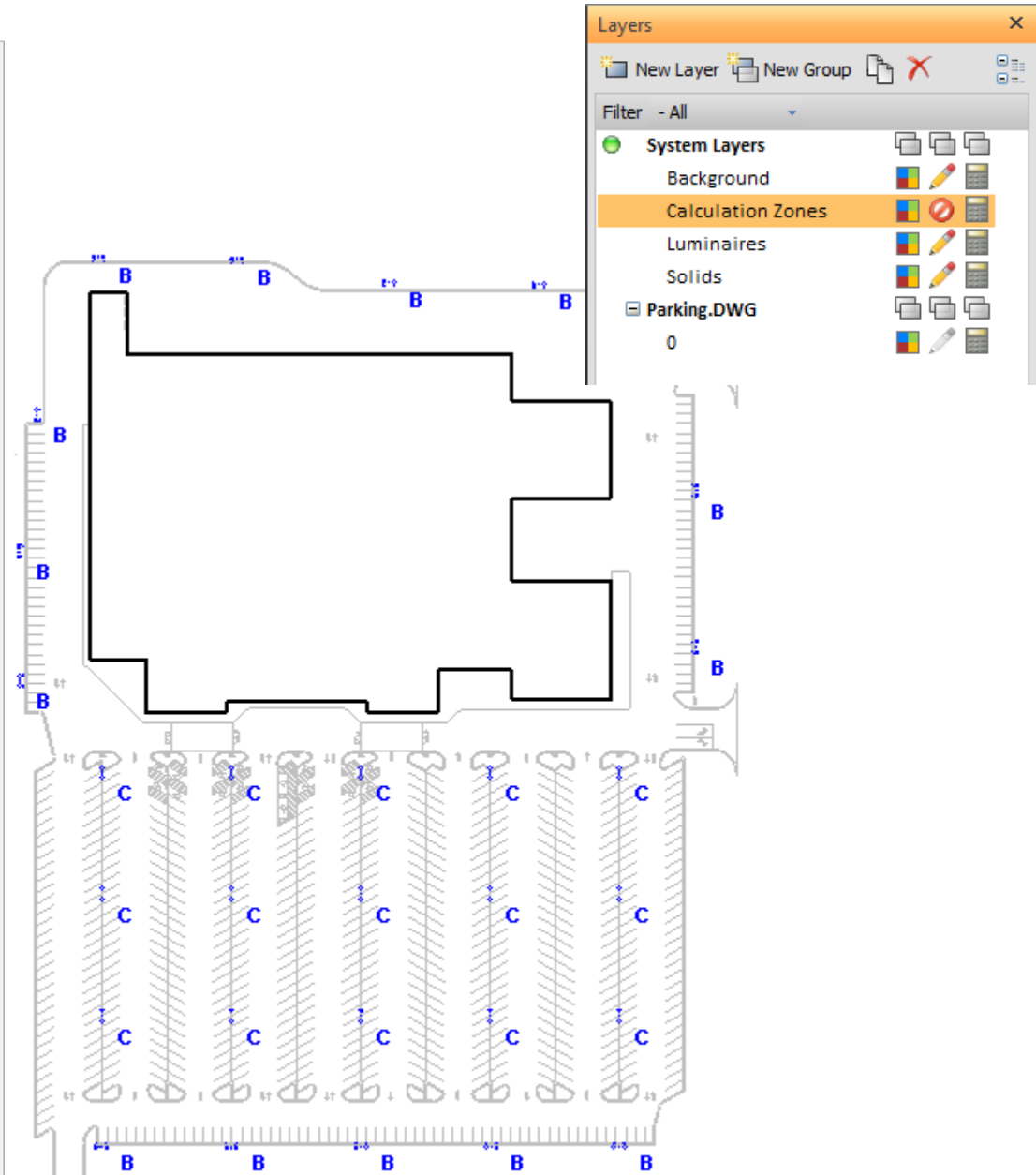Insert Statistical Zone for the front parking area

1. Select the **Statistical Zone - Rectangular**

2. Select the **Entire Area** calculation zone

3. Draw a **Statistical Zone** to include the front parking area
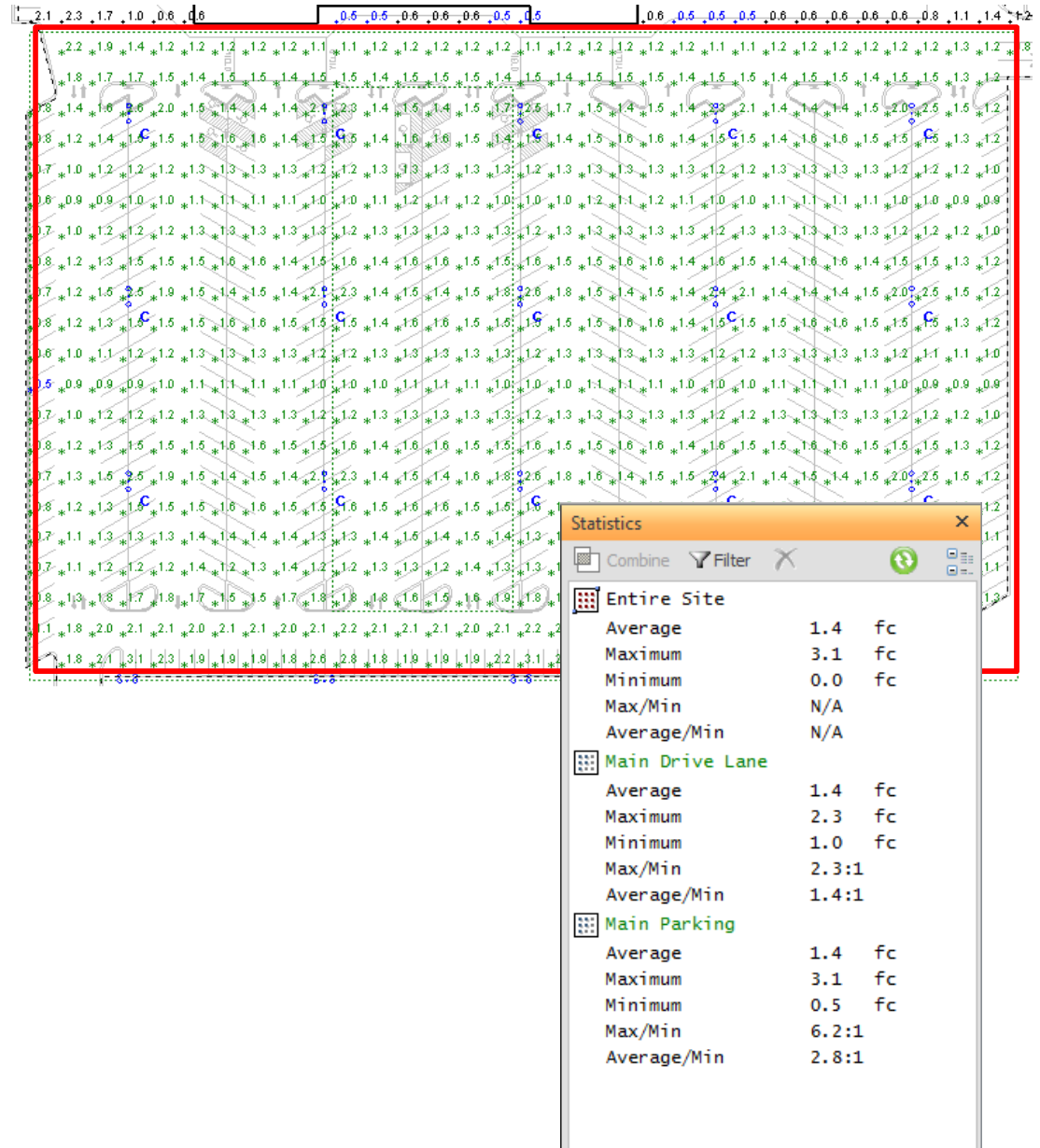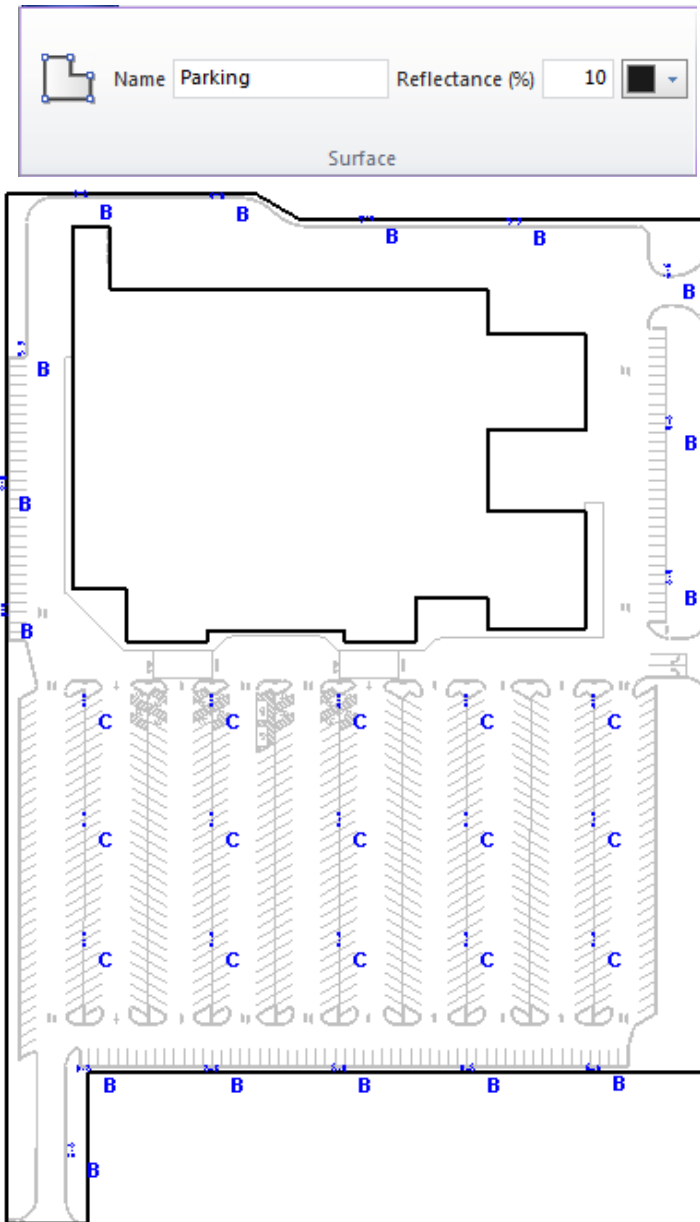
Parking Project

Hide the calculation points

1. In the Layer Manager, change the Calculation Zone layer to Invisible

Parking Project

Insert a polygonal solid to represent the parking area

1. Select the **Polygonal Solid** command.

2. Enter a Name of **Parking**.

3. Select a color of **dark gray – reflectance 10%.**

4. Construct a polygonal solid around the entire site.

Parking Project

Click the Render button to generate a rendering of this lighting design.