

Roof Mount System Calculator

Instructions for Flat to roof setup.

Note: Flat to roof setup is a solar racking rooftop system not using the Radiant Tripod.

This guide is for the assistance to quote solar customers who request quantities of Radiant Solar Racking from wholesale branches.

Please ask the customer to supply to you first:

- A layout of the solar panels on the roof.
 - The solar panel dimensions they are choosing to use. Important for middle and end clamp size needed. As well as determining what rail length best suited for the job.
As a guide, Radiant recommends using rail length 4400mm for panels wider than 1000mm.
 - The location of install.
 - Roof profile – this could be tin, tile, trim dek, klip lok etc. Customer needs to clarify.
 - The height of the roof.
 - The distance the customer plans to install the solar racking feet (or brackets) on the roof. This will be dictated by the purlins on the roof. The customer is to review the Radiant installation guides for understanding maximum spans allowed.
-

To assist, this guide will use the below example for instructional purposes.



Layout: the above layout lets us see the setup required of the panels. In this example we have three rows of 8, and two rows of 9.

Location: Brisbane.

Roof profile: Corrugated Tin.

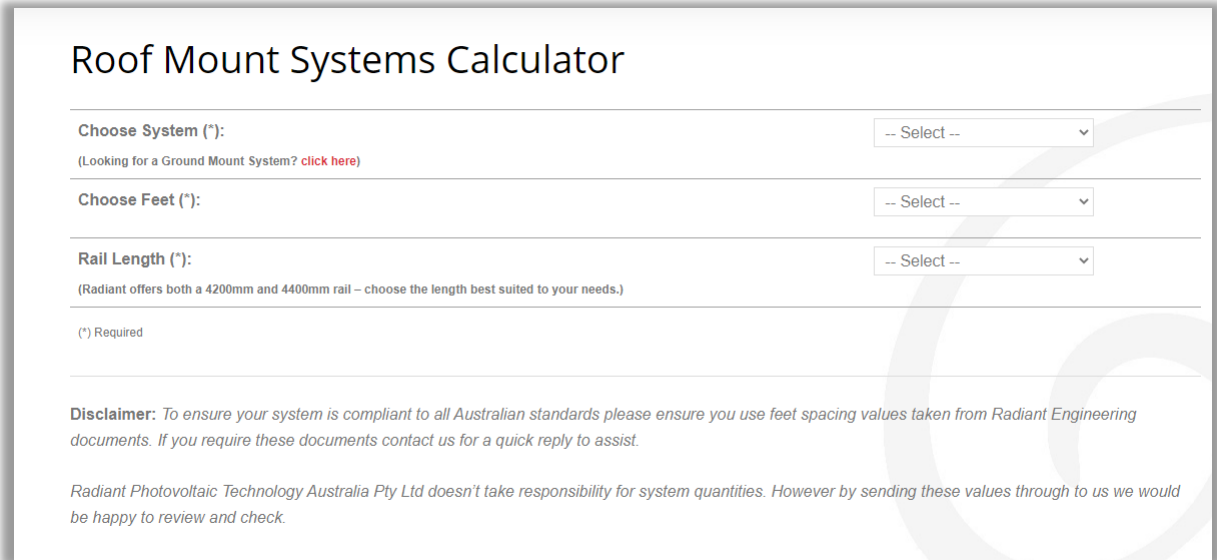
Height of building: 8m.

Distance between purlins: 900mm.

Panel Width: 1010mm

Using the example above, go to the Radiant website to access the Solar Calculator.

<https://www.radiant-pv.com/services/systems-calculator>



The screenshot shows a web form titled "Roof Mount Systems Calculator". It contains three required fields, each with a dropdown menu:

- Choose System (*):** A dropdown menu with "-- Select --" and a downward arrow. Below it is a link: "(Looking for a Ground Mount System? [click here](#))".
- Choose Feet (*):** A dropdown menu with "-- Select --" and a downward arrow.
- Rail Length (*):** A dropdown menu with "-- Select --" and a downward arrow. Below it is a note: "(Radiant offers both a 4200mm and 4400mm rail – choose the length best suited to your needs.)".

Below the fields is a note: "(*) Required".

At the bottom of the form is a disclaimer: "Disclaimer: To ensure your system is compliant to all Australian standards please ensure you use feet spacing values taken from Radiant Engineering documents. If you require these documents contact us for a quick reply to assist." and a footer: "Radiant Photovoltaic Technology Australia Pty Ltd doesn't take responsibility for system quantities. However by sending these values through to us we would be happy to review and check."

Step 1. Choose the system.

If laying panels flat to the roof click "Flat to Roof".

If tilting the panels with a tripod click "Tilt".

In this example choose "Flat to Roof".

Step 2. Choose Feet.

Various Radiant feet will appear in the drop-down option.

In this example choose "Tin Feet".

Step 3. Choose Rail Length.

Radiant offer a 4200mm rail length, and a 4400mm rail length.

In this example choose "4400mm".

As a guide, Radiant recommends using rail length 4400mm for panels wider than 1000mm.

This last step should provide a new drop down. See next page.

Roof Mount Systems Calculator

Choose System (*): Flat to Roof ▾
(Looking for a Ground Mount System? [click here](#))

Choose Feet (*): Tin Feet ▾

Rail Length (*): 4400 mm ▾
(Radiant offers both a 4200mm and 4400mm rail – choose the length best suited to your needs.)

(*) Required

System Details

Setup 1

Number of panels in each row (*)

Spacing between feet (mm) (*)

Number of rows of this number of panels (*)

Width of panel being used (mm) (*)

Click to add a new setup - 1 +

Parts Required

Rail (4400 mm)	<input type="text" value="0"/>
Splice	<input type="text" value="0"/>
Middle Clamp	<input type="text" value="0"/>
End Clamp	<input type="text" value="0"/>
Earthing Clip	<input type="text" value="0"/>
Earthing Lug	<input type="text" value="0"/>
Tin Feet	<input type="text" value="0"/>
Rail Cap	<input type="text" value="0"/>

Send Me This quote

All that is required now is to complete the “Setups”.

Because we have rows of 8 panels and rows of 9 panels, we will need two setups.

Setup 1 will be:

8 panels in a row at 900mm between feet. X 3

Setup 2 will be:

9 panels in a row at 900mm between feet. X 2

Once you enter this information the calculator will produce quantities to fulfill the system.

See next page.

Choose System (*):
(Looking for a Ground Mount System? [click here](#))

Choose Feet (*):

Rail Length (*):
(Radiant offers both a 4200mm and 4400mm rail – choose the length best suited to your needs.)

(*) Required

Flat to Roof

Tin Feet

4400 mm

System Details

Setup 1

Number of panels in each row (*)

Spacing between feet (mm) (*)

Number of rows of this number of panels (*)

Width of panel being used (mm) (*)

Setup 2

Number of panels in each row (*)

Spacing between feet (mm) (*)

Number of rows of this number of panels (*)

Width of panel being used (mm) (*)

Click to add a new setup - 2 +

Parts Required

Rail (4400 mm)	22
Splice	14
Middle Clamp	74
End Clamp	20
Earthing Clip	47
Earthing Lug	5
Tin Feet	108
Rail Cap	20

Send Me This quote

Entering the information above will give you a bill of materials (Parts Required) for the system.

Note: these are the basic requirements for a system and should be confirmed by the customer. They are ultimately responsible for what they order.

Taking the above quantities and using your appointed wholesale pricelist you can now successfully quote your customer.

For any questions relating to Radiant please contact us at:

sales@radiant-pv.com or 07 3907 0924.