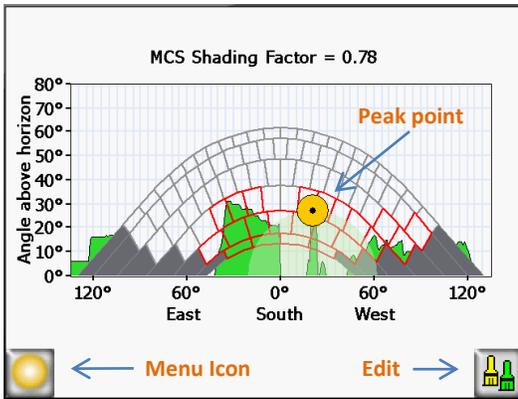# Solmetric

SunEye Guide: MCS Shade Factor Software Feature

The MCS Software Feature developed by Solmetric is intended to comply with the methodology described in Section 3.7.7 of the 2012 version of *Guide to the Installation of Photovoltaic Systems* published by the Microgeneration Certification Scheme (MCS).

MCS Shading Factor = 0.78

Peak point

Menu Icon ← → Edit

Step 1. In order to activate this feature please make sure to have your **Region** set to *United Kingdom*. To do so, select the **Menu** icon > **Tools** > **Select Locale**… Where it shows **Region** please choose *United Kingdom* from the list. Refer to the SunEye *Quick Start Guide* to learn how to create a new session, new skyline and edit open sky/obstructions.

Note: when entering Panel Orientation the Azimuth is displayed differently in the UK versus other operating regions. When using the SunEye in the UK Azimuth is given with True (Due) South = 0°. In this case the Azimuth or Orientation displayed will be the degrees away from True (Due) South. (*Examples: For an orientation Due SW it would display 45°W and for an orientation Due SE it would display 45°E.)*

Step 2. MCS results. After taking a Skyline measurement the results will default to show the Annual sunpath View. To get to the results in the MCS format, select the **Menu** icon > **View** > **MCS Shading Factor**. Now the MCS Shading Factor value will be displayed at the top of the image along with the MCS graph.

Step 3. Near Shading. (Part I) The SunEye automatically assumes that all shading obstructions that are captured are "far" shade (greater than 10 meters). According to the MCS Guide, any shade obstruction 10 meters or less must be calculated differently. Hence, in the software the user must manually note any near shade obstruction. To do so, once you are viewing the **MCS Shade Factor** select the **Edit** icon at the bottom right of the screen. At the bottom right you will see **Circle** icons with a plus or minus sign which are used to add and/or subtract near shade obstruction peaks. To identify a near shade obstruction select the **Circle** icon with the plus (+) sign and then click on the image at the highest point or the peak of the near shade obstruction.

Note: since it is a Fisheye image looking upward, the peaks or highest points of shade are towards the center of the image (upside down). Also the obstructions on the left of the image will show up on the opposite or right side of the MCS chart. You can place up to 10 near shade obstruction peaks on a single Skyline. To remove a near shade peak point select the **Circle** icon with a minus sign (-) and then select the peak point you wish to remove.

Step 4. Near Shading (Part II). After identifying any near shade obstructions the user can move the **Circle** peak point on the MCS chart. Per the MCS this is required for any near shade obstruction that goes above the top (summer sunpath) line.

*Note***:** (Editing) After clicking on the **Edit** icon at the bottom right of the screen the user will see a menu for adding or removing shade using the paint brushes. After clicking on the single paintbrush the user will notice four sub-choices. Yellow to add sun and Green to add shade obstructions along with two sizes of each color.

Step 5. Reporting. As long as the region is selected correctly (see Step #1 above) when the user generates a Session Summary Report it will automatically include the **MCS Shade Factor** results along with the corresponding MCS chart.