



**CM 121** is a shadow ring that does not require power and can be used with all the Kipp & Zonen CMP, SMP, CGR and CUV series of instruments. It is used for measurements of the diffuse sky radiation or to shade a pyrgeometer from the direct solar radiation. CM 121B is for unventilated radiometers and CM 121C is for ventilated instruments.

Specific advantages of this type of shadowing are that it is suitable for installation anywhere on earth (contrary to designs that require the specification of a particular latitude), that it can be combined with a ventilation unit, and that it has a special U-profile ring which simplifies the mathematical correction for intercepted diffuse radiation.

The shadow ring will keep the pyranometer in the shade during the entire day, preventing the direct solar radiation reaching the sensor. As a result only the diffuse solar radiation is measured. A regular schedule of maintenance would require manual adjustment of the sliding bars (that are connected to the actual shadow ring) every two days. This adjustment is necessary because the elevation of the solar course changes slightly from day to day. For proper setting of the sliding bars, the table of "correction factors and the sliding bar setting" can be consulted.

Naturally, the shadow ring intercepts also a proportion of the diffuse sky radiation. A correction factor for this effect is recommended to be used as a refinement of the measurement. A table of correction factors is combined with the table for sliding bar setting.

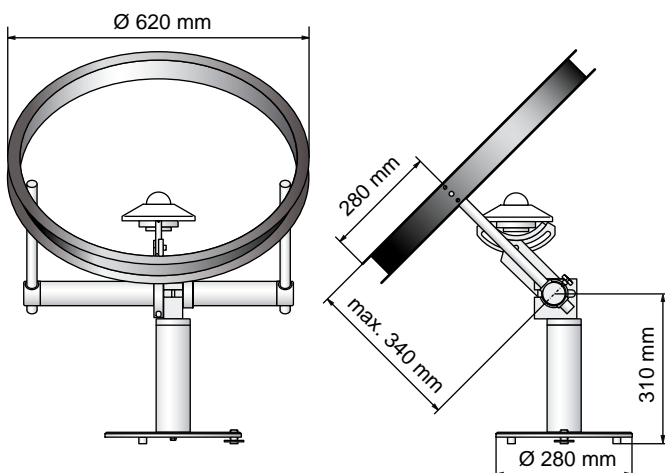
A measuring instrument is not included with the shadow ring and must be ordered separately.



## **SPECIFICATIONS**

Ring width / radius rate	0.185
View angle (as seen from instrument)	10.6 °
Weight, including typical instrument	6.5 kg

## **DIMENSIONS**



Part number	Article
0346900	CM 121B Shadow Ring for unventilated radiometers
0346901	CM 121C Shadow Ring for ventilated radiometers

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.