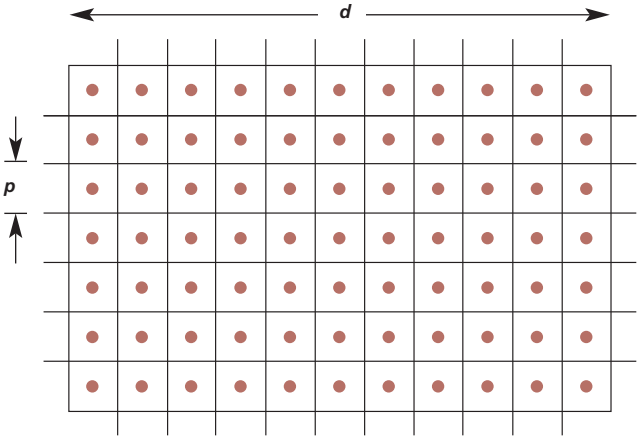

Figure 20.4
A full grid of measurements should be used for exterior lighting installations

The number of cells in the larger dimension is given by the nearest odd whole number to the quotient of the size of the longer reference axis (d) and the grid interval (p). This result is then used to calculate the nearest odd whole number of cells in the smaller dimension. In a symmetrical but localised situation, as on an athletics track, the larger dimension d is given by one quarter of the distance of the overall inner track limit (Figure 20.5).

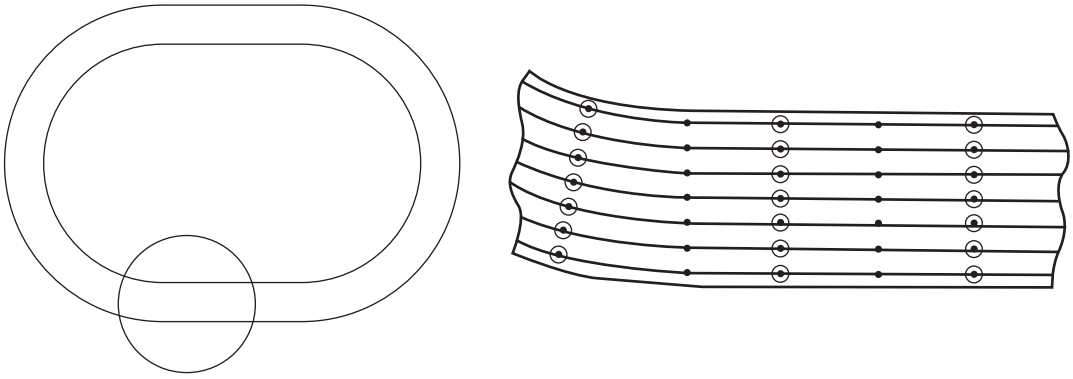

Figure 20.5 Calculation for an athletics track

For the special case of road lighting, further guidance on measurement procedures is given in ILE Technical Report 28: *Measurement of Road Lighting Performance on Site*.

20.5 Measurement of illuminance variation

To confirm compliance with the recommendations on illuminance variation, measurements of illuminances over the whole working plane are needed to calculate illuminance diversity and over task areas and their immediate surrounds to calculate illuminance uniformity.

20.5.1 Illuminance diversity

For a wide range of commercial and industrial interiors where the visual task may be adversely affected by excessive variations in illuminance, the full grid measurement method should be used. This will provide a coarse grid of points over the whole working plane. Additional measurements are then required, centred on selected points to check for local maximum and minimum illuminances. These additional measurements are made on a 3×3 grid of points at about 1 m centres. In this procedure any measurement locations within 0.5 m of room walls or large fixed obstructions are ignored.