



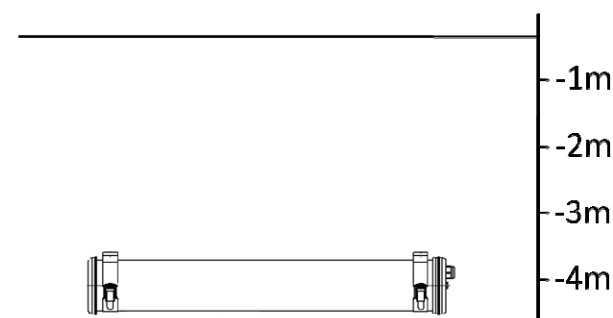
# IP68 and IP69K

## IP68

(according to norm IEC 60529)

Protection of the luminaire against the ingress of solid foreign objects (including dust) and the ingress of water under continuous immersion at a depth indicated by the constructor.

### The test IPX8



### Description

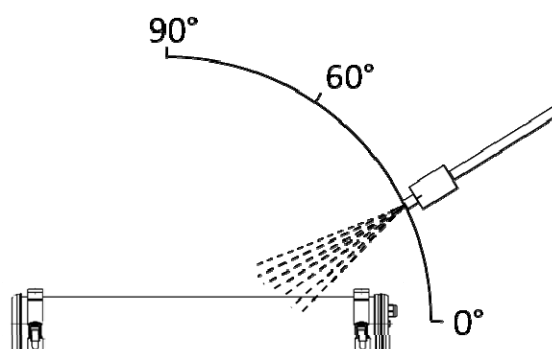
The tubular luminaire ranges from Sammode are IP68 down to 4m. During the test the luminaires are immersed during 30min at 4m in cold water.

## IP69K

(according to norm DIN 40050-9 and ISO 20653)

Protection of the luminaire against the ingress of solid foreign objects and high pressure jet cleaning.

### The test IPX9K



### Description

The tubular luminaires from Sammode are IP69K. For the test, a luminaire is placed on a rotating platform (5 complete tours per minute) and exposed to a high pressure jet at 80°C and 80-100 bar with a flow rate of 14-16l/min. The spray nozzle has to be placed in the angles 0°, 30°, 60° and 90° during 30sec each in a distance of 10-15cm to the tested object.

The degree of protection IP69K does not include the protection IP68. They distinguish the protection of the luminaire to the ingress of water under completely different conditions. A luminaire IP69K is not automatically IP68 and vice versa. It is specified that both protections have to be indicated on the luminaires.