

Technical Lighting Regulations

All installations must comply to guidelines which are based on a zonal concept. The colour coded diagram below illustrates this concept and must be followed to ensure the safe installation of bathroom lighting. These regulations apply to domestic installations only.



ZONE 0	ZONE 1	ZONE 2	OUTSIDE ZONE
refers to any area that will be completely submerged, in the bath, sink or on a shower floor. This zone requires a fixture with a minimum rating of IPX7 (usually IP67) and a maximum of 12V	refers to the area above the bath or shower up to a height of 2.25 metres and requires a minimum rating of IPX4 (splash-proof).	covers an area 0.6 metres wide immediately next to, and all round zone 1. Wash basins should also be treated as zone 2. The minimum rating here is IPX4.	has no special requirements, unless water jets are likely to be used for cleaning purposes.

IP Ratings Regulations



The IP (Ingress Protection) standard describes a uniform system for classifying the degrees of protection provided by the enclosures of electrical equipment.

This bathroom light is rated IP65 which means:



- 6** Protected against dust - limited ingress permitted (no harmful deposit).
- 5** Protection against water jets. Water projected by a nozzle from any direction under stated conditions shall have no harmful effect.

First Numeral: Protection against ingress of foreign bodies e.g. tools, dust, fingers, etc.

0	1	2	3	4	5	6
No protection	Protected against solid objects with a diameter of 50mm and over (e.g. accidental insertion of hands).	Protected against solid objects over 12mm (e.g. jointed fingers).	Protected against solid objects over 2.5mm (tools).	Protected against solid objects over 1mm (small wires).	Protected against dust- limited ingress permitted (no harmful deposit).	Totally protected against dust.

Second Numeral: Protection against ingress of liquids

0	1	2	3	4	5	6	7	8
No protection	Protected against drops of condensed water. Drops of condensed water falling on the enclosure shall have no harmful effect.	Protection against drops of liquid. Drops of falling liquid shall have no harmful effect when the enclosure is tilted at an angle up to 15 degrees from the vertical.	Protection against rain. Water falling in rain at an angle equal or smaller than 60 degrees with respect to the vertical shall have no harmful effect.	Protection against splashing. Liquid splashed from any direction shall have no harmful effect.	Protection against water jets. Water projected by a nozzle from any direction under stated conditions shall have no harmful effect.	Protection against conditions on ship decks (deck equipment). Water from heavy seas shall not enter the enclosures under prescribed conditions.	Protection against immersion in water. It shall not be possible for water to enter the enclosure under stated conditions of pressure and time.	Protection against indefinite immersion in water under specified pressure. It shall not be possible for water to enter the enclosure.