

IP Ratings

Full details can be found in the latest copy of the IEE wiring regulations.

Explanation of IP Ratings for Protection

0	Not Protected	0	Not Protected
1	Protected against Solid Objects greater than 50mm	1	Protected against Dripping Water
2	Protected against Solid Objects greater than 12mm	2	Protected against Dripping Water when tilted to 15°
3	Protected against Solid Objects greater than 2.5mm	3	Protected against Spraying Water
4	Protected against Solid Objects greater than 1mm	4	Protected against Splashing Water
5	Dust Protected	5	Protected against Water Jets
6	Dust Tight	6	Protected against Heavy Seas
		7	Protected against the effects of Immersion
		8	Protected against Submersion

Bathroom Lighting

Great care needs to be taken when choosing bathroom lighting as the regulations are strict concerning the type of light you can use.

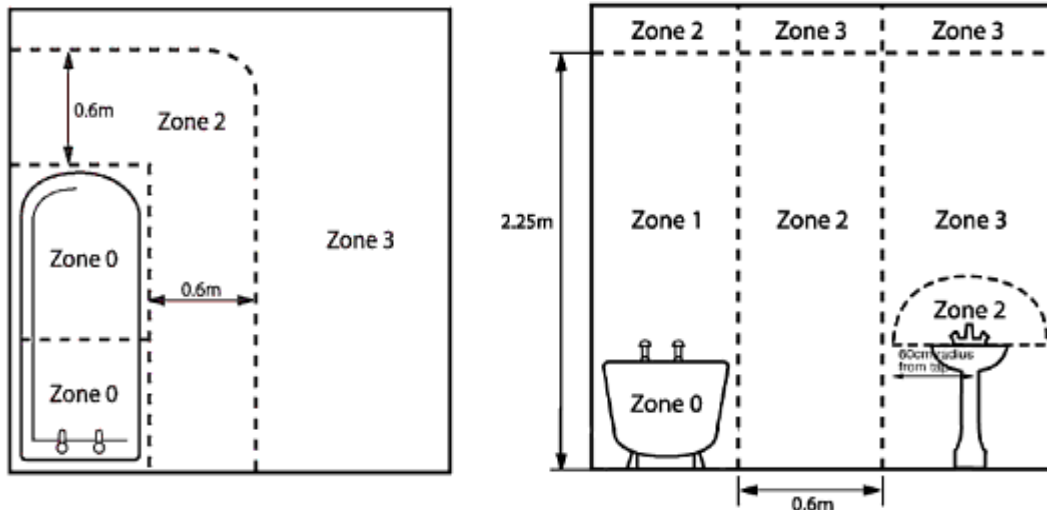
For general illumination in the bathroom either use downlights for their refreshing colour or a high output flush ceiling fitting to suit the décor. Portable lights are not permitted in a bathroom so for mood lighting use ceiling mounted directional spotlights aimed away from the bath and at interesting features.

Lights designed specifically for showers are available and must be carefully fitted according to the instructions.

The bathroom mirror deserves some special attention and a diffused glass light either side will give a good general illumination where it is needed. One alternative is a downlight from the ceiling.

The following information is a guide to help you understand what fittings can be placed where. This is not an installation guide and reference should be made to the IEE Wirings Regulations (16th Edition) or a qualified electrician. Firstly it is important to understand the rating by which bathroom and some outdoor lights are classified. IP rating stands for 'Ingress Protection' and is always followed by two characters.

These two numbers refer to level of protection and it is important that you choose fittings with the correct rating according to where they are to be sited within the bathroom.



The diagrams above show a bathroom split into four clear zones: 0, 1, 2 and 3.

Zone 0 is inside the bath or shower itself. Any fitting used in this zone must be low voltage, (max 12v) and be rated at least IP67 which is total immersion proof.

Zone 1 is the area above the bath to a height of 2.25m from the floor. In this zone a minimum rating of IP44 is required. If the fitting is 240v a 30ma residual current device (RCD) must also be used to protect the circuit in this zone.

Zone 2 is an area stretching 0.6m outside the perimeter of the bath and to a height of 2.25m from the floor. In this zone an IP rating of at least IP44 is required. In addition it is good practice to consider the area around a wash basin, within a 60cm radius of any tap to be considered as zone 2.

Zone 3 is anywhere outside zones 0,1 and 2 (subject to specific limits) and where no water jet is likely to be used. No IP rating is required. In addition to the above, if there is a likelihood of water jets being used for cleaning purpose in zones 1,2 and 3 a fitting rated a minimum IP65 must be used.

Specification of Bathroom Fittings

0	The interior of the bath tub or shower basin.	Only SELV not exceeding 12v AC nominal voltage. Transformers must be sited outside Zones 0,1,2. IP rating must be at IPx7.
1	Area immediately above bath or shower tray.	IP rating of at least IPx4. Where water jets are likely to be used for cleaning purposes in communal baths & showers at least IPx5 is required.
2	Within 0.6m of the outside edge of the bath or shower.	IP rating of at least IPx4. Where water jets are likely to be used for cleaning purposes in communal baths & showers at least IPx5 is required.
3	Anywhere outside Zones 0,1 & 2.	No specific IP rating unless where water jets are likely to be used for cleaning purposes in communal baths & showers at least IPx5 is required.