

## “WHAT IS IP ZONING?”

To illustrate IP zoning regulations, we show a bathroom area divided up into areas or 'ZONES' which are classified using the numbers 0 - 3. Light fittings are then assigned an 'IP RATING' which indicates how much protection they provide against ingress of water and other particles. Each zone has a minimum IP requirement that must be met if a fitting is to be installed in this area.



**ZONE 0** Inside the bath or shower. Any fittings used here must be SELV (max. 12V) and have a minimum rating of IPX7 (protected against immersion in water)

**ZONE 1** Above the bath or shower to a height of 2.25m. A minimum rating of IPX4 is required \*(see note 1)

**ZONE 2** The area stretching to 0.6m outside the bath or shower and above the bath or shower if over 2.25m. An IP rating of at least IPX4 is required \*(see note 1)

**ZONE 3** Anywhere outside zones 0, 1 & 2. Where water jets are not to be used for cleaning purposes, the general rules of BS7671 apply \*(see note 1)

**NOTES:**

- 1** In zones 1, 2 & 3, if there is a likelihood of water jets being used for cleaning purposes, a min. of IPX5 is required.
- 2** In zones 1 and 2, SELV or 240V luminaires may be used (subject to IP rating) 240V luminaires must be protected by a 30mA RCD if installed in Zone 1.
- 3** There is no requirement for luminaires to be protected against particles or solid objects, e.g. IPX4.
- 4** The above information is intended as a guide only. For detailed information, refer to the I.E.E. Wiring regulations (BS 7671: 2001 Section 601).



ZONE

0



IP67 RECOMMENDED

ZONE

1



IP65 RECOMMENDED

ZONE

2



IP44 RECOMMENDED

ZONE

3



IP NOT ESSENTIAL

IP RATINGS EXPLAINED

"IP" ("Ingress Protection") RATING

FIRST DIGIT

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

SECOND DIGIT

Protection against ingress of liquids i.e. IP44 is protection against solid objects greater than 1mm and water sprayed from all directions

FOREIGN BODIES FIRST DIGIT		LIQUIDS SECOND DIGIT	
0	No protection	0	No protection
1	Protected against solid objects greater than 50mm (e.g. accidental touch by hands)	1	Protection against vertically falling drops of water (e.g. condensation)
2	Protected against solid objects up to 12mm (e.g. fingers)	2	Protection against direct sprays of water up to 15 degrees from vertical
3	Protected against solid objects greater than 2.5mm (e.g. tools and wires)	3	Protection against direct sprays of water up to 60 degrees from vertical
4	Protected against solid objects greater than 1mm (e.g. small tools and wires)	4	Protection against water sprayed from all directions - limited ingress permitted
5	Protected against dust, limited ingress (e.g. no harmful deposit)	5	Protected against low pressure jets of water from all directions - limited ingress permitted
6	Totally protected against dust	6	Protected against high pressure jets of water (use on ship deck) - limited ingress permitted
		7	Protected against the effects of immersion between 15cm and 1m
		8	Protected against long periods of immersion under pressure

COMMON IP RATINGS

Although there are numerous combinations of IP ratings, the most common ones are illustrated below as recognised symbols - together with examples of popular products. For specially IP rated luminaires you will find each product clearly marked with its IP rating PLUS the highest zone in which it can be installed

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