LED LIGHTING GUIDES

IP Rating & Zones

Learn about IP ratings and zones for LED lighting. Understanding these concepts is essential for selecting the right lighting fixtures, ensuring their protection against solids, liquids, and water, and ensuring safe operation in different areas, especially in bathrooms.

IP Rating

IP rating refers to a standard used to classify the degree of protection provided by an electronic device, such as an LED product, against the ingress of solids and liquids. It indicates the product's resistance to dust, dirt, moisture, and water.

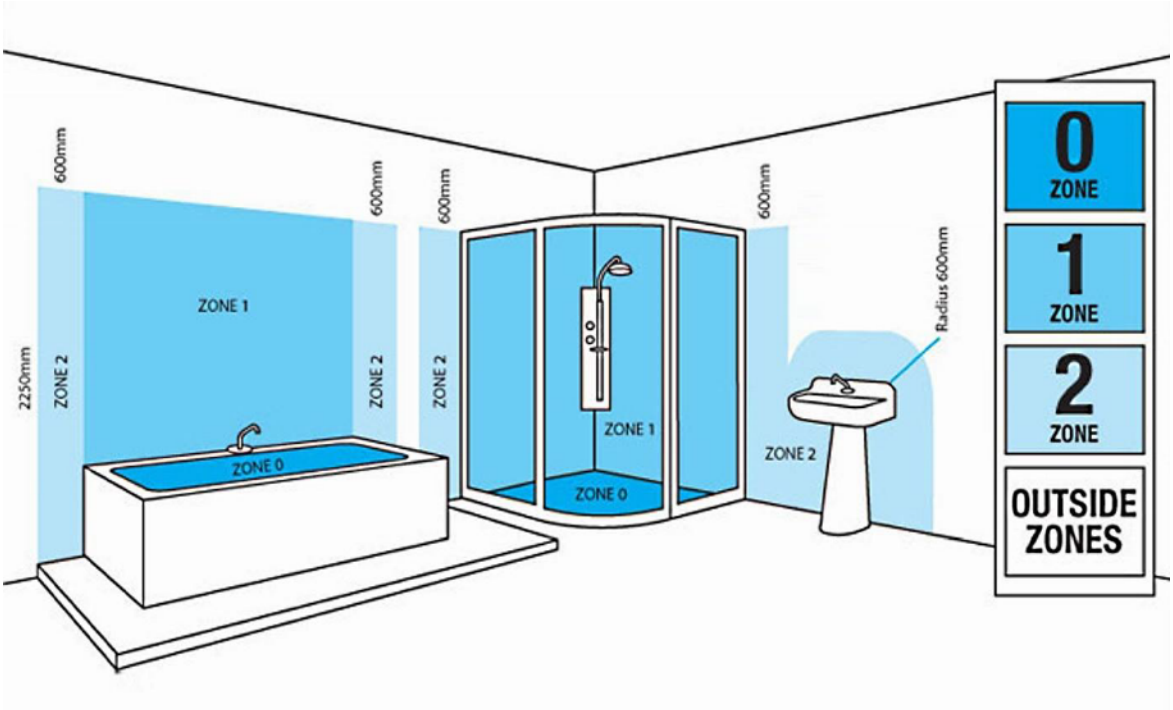
Understanding an IP rating involves looking at the two-digit code provided. The first digit represents the protection against solids and moving parts, while the second digit indicates the protection against moisture and water. Each digit has specific meanings and defines the level of protection.

For example, an IP44 rating means the product is protected against solid objects greater than 1mm and water sprayed from all directions. An IP65 rating indicates protection against dust of all sizes and water jets.

Tel: 01302 741941 Email: sales@tlwglobal.com Website: tlwglobal.com

IP Zones

IP zones refer to specific areas in a bathroom that are categorised based on their exposure to water. These zones help determine the appropriate IP rating required for lighting fixtures in those areas to ensure safe operation. A bathroom IP zone map can be consulted to identify the level of protection needed for each area.



SELV stands for "Separate Extra-Low Voltage." It refers to an electrical system or circuit that operates at a voltage level considered safe for human contact. SELV systems provide additional protection against electric shock and are commonly used in wet environments like bathrooms.

IP ZONES

ZONE 0 — **Inside the bath or shower. Any fittings used here must be SELV (max. 12v). A minimum rating of IPx7 is required here.**

ZONE 1 — **Above the bath to a height of 2.25m. A minimum rating or IPx4 is required here.**

ZONE 2 — **The area stretching to 0.6m outside the bath and above the bath if over 2.25m. An IP rating of at least IPx4 is required here.**

This information is intended as a guide and contains several generalisations for illustrative purposes. For more technical information refer to an electrician and specific product data.

Conclusion:

Understanding IP ratings and zones is crucial when selecting LED lighting for different areas, especially bathrooms. The IP rating indicates the device's protection against solids and liquids, while IP zones help determine the appropriate rating for each area. By following the IP zone map and consulting experts, you can ensure the safety and proper functionality of your LED lighting fixtures.

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