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🗣️ EN · العربية

PRACTICAL LIGHTING KNOWLEDGE

What is *IP?*

The two digits that decide if a fixture survives a Saudi summer, and the codes worth memorising.

What does **IP65** actually guarantee?

Two digits, in order. The first is protection from solids and dust. The second is protection from water. Nothing more, nothing less.

FIRST DIGIT · 1 OF 2

Solids

Protection from **dust, on a 0 to 6 scale.**



A first digit of **6 means dust-tight.**
No particles get in. The Saudi outdoor floor.

SECOND DIGIT · 2 OF 2

Water

Protection from **liquids**, on a **0 to 9K** scale.



5 = jets, 6 = strong jets, **7 to 8 = immersion.**
Each step is a separate lab test.



THE CODE STRUCTURE

IP + 65

**first digit 0-6 (solids) ·
second 0-9 (water)**

Read it left to right: IP, then solids, then liquids. Higher means more sealed, not automatically better.

Three things to remember.

The order, the Saudi outdoor floor, and the hidden cost of over-sealing a fixture.

THE ORDER

**Solids first, then
water**

6·5

DUST · JETS

SAUDI OUTDOOR

**Minimum for
streetlights**

IP65

DUST-TIGHT

THE TRADE-OFF

**Higher IP runs
hotter**

5-10%

LUMEN DERATE

IP codes you can **screenshot.**

Per IEC 60529. Spec the lowest digit that meets the environment.

Dust-tight body

6 first digit

IP65 · water jets

streetlights canopies

IP66 · strong jets

façades marine-adjacent

IP67 · 1 m immersion

uplights planters

IP68 · continuous submersion

fountains pool walls



The common spec mistake.

Assuming a higher number is always better, and always needed. A sealed body **cannot dump heat**, so over-sealing costs lumen life. And remember, IP is ingress, **not impact resistance**.

NEXT TIME YOU SPEC A FIXTURE

Ask for the **tested** **standard.**

Confirm the rating is verified to IEC 60529, then match the IP to the real environment, not to the biggest number on the datasheet.

- ✓ Rating tested and certified to IEC 60529
- ✓ IP chosen for the actual install environment
- ✓ Cable gland rated to match the body



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