COOPER Lighting Solutions
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Lighting Control System Comparison

WaveLinx DALI vs. Common Alternatives — Feature by Feature

Selecting a lighting control system requires more than a feature list. It requires understanding how those features translate to real-world outcomes at the specification stage, on the job site, and over the life of the building. This comparison evaluates WaveLinx DALI against three common control approaches across nine decision-critical attributes.

Feature	WaveLinx DALI DALI-2 Certified	0–10V Analog Traditional dimming	Wireless-Only BLE / Zigbee / Thread	Relay / Switching Basic on/off control
Control Type	Digital protocol	Analog signal	Wireless comms	On/Off switching
Per-Fixture Control	**Yes — native**	Limited	Yes	No
Commissioning	**Fast, software-based**	Manual tuning	App / cloud-based	Manual wiring
Cross-Manufacturer	**Yes — DALI-2 certified**	No	Limited	N/A
Changes w/o Rewiring	**Yes**	No	Yes	No
Energy Monitoring	**Yes — with D4i**	No	Sometimes	No
Sensor Integration	**Native to system**	Add-on only	Native	Add-on only
Troubleshooting	**Precise digital diagnostics**	Trial and error	App-based	Physical inspection
Scalability	**Excellent**	Limited	Moderate	Very limited
Typical Applications	Commercial, healthcare, education, smart campuses	Basic dimming retrofits	Retail, small commercial	Warehouses, storage

How to Read This Comparison

0-10V is reliable for basic dimming but cannot address fixtures individually. Any zone change requires physical rewiring. It is a reasonable choice for simple retrofits with a constrained budget and no plans to reconfigure the space. **Wireless-only** excels in spaces where running control wiring is impractical. The tradeoff is battery-dependent sensors, potential RF interference in dense environments, and cross-manufacturer compatibility that varies significantly by ecosystem. **Relay/switching** is appropriate for warehouses and basic spaces that need on/off control and nothing else. It is not a fit for any space requiring dimming, occupancy response, or energy data. **WaveLinx DALI** addresses all of those gaps: per-fixture control, software-based commissioning, cross-manufacturer interoperability, zone changes without rewiring, and D4i operational data built into the standard.