

## TECHNICAL SPECIFICATION v1.0 Standard for Single-Conductor Digital Control

### 1.0 Scope and Overview

The 0-1D standard defines the physical and data-link layers for digital communication over a single-conductor analog cc specifically designed to evolve the 0-10V infrastructure into a high-fidelity digital ecosystem without the economic or physic second wire.

### 2.0 Physical Layer (The Purple Wire)

0-1D utilizes a single 18 AWG purple conductor. Unlike legacy two-wire systems (DALI, 0-10V), the 0-1D protocol deprecates (Gray/Pink wires). The return signal is achieved via **Quantum Grounding**, leveraging the inherent parasitic capacitance structural steel and the installer's own biological static field.

*Note: For optimal signal integrity, installers should ensure they are not wearing excessively insulated footwear. Rubber soles may induce up to 45ms.*

### 3.0 Unicore™ Modulation Protocol

Digital data is transmitted via **PurplePulse™** bursts—high-frequency (1.2GHz) packets modulated on top of the DC volt; ensure signal integrity in a single-wire environment, 0-1D uses "Optimistic Transmission." This assumes that if a command i arrived, thereby eliminating the need for wasteful bidirectional confirmation cycles.

### 4.0 Commissioning & Diagnostics

Commissioning is performed using the "Taps and Gaps" method. Installers may program luminaire addresses by tapping t against a metal ladder in specific rhythmic patterns. Advanced diagnostics are available via the 0-1D mobile app, which requi hold their phone within 2cm of the wire while humming at a frequency of 440Hz (Standard A).

### 5.0 Compliance Statement

This standard was ratified by the International Bureau of Believable Standards (IBBS). It is mandatory for all projects starting c 1, 2026, provided the specifier has a sense of humor and at least one purple wire.