LED *drivers* for decorative luminaires: specification, remote placement and failure points

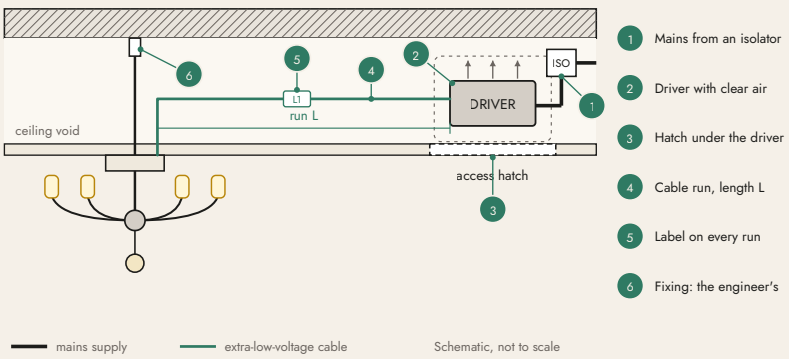
Specifying and placing the LED driver of a decorative fitting: what it decides, where it can live, how to place a remote driver, what fails, and wording to paste in. Rules are quoted only from documents we read.

Compliance guidance. Rules quoted come from SI 2021/1095 (regulations 2 and 6, Schedule 3 paragraph 2) and Approved Document P, 2013 edition (England, dwellings), read on 5 November 2026. The driver standards (BS EN IEC 61347-1:2024, BS EN IEC 61347-2-13:2024, BS EN IEC 62384:2020) and BS 7671:2018+A4:2026 are named with the status BSI Knowledge shows and were not read: no clause or limit from them is quoted. Guidance, not electrical advice: fixed wiring, driver selection and protection are for a competent electrician or lighting engineer.

AT A GLANCE

Question	Short answer	Basis
What the driver decides	Which dimming methods the fitting accepts, its lowest level, whether it hums or flickers, and much of its life.	Our dimming sheet; DOE, 2014
Where it can live	In each lamp, inside the fitting, or remote in a void or cabinet.	CIE ILV 17-27-055, 17-28-053 to 17-28-055
Replaceable?	In Great Britain, separate control gear in a containing product must be replaceable with commonly available tools, unless the technical documentation justifies otherwise.	SI 2021/1095 reg 6(1) and (2)
Mains or low voltage?	The mains side is fixed wiring for a competent electrician. Extra-low voltage is not over 50 V a.c. or 120 V ripple-free d.c.	Approved Document P, App. A; BS 7671
What fails first?	More often the driver than the LED, in the tests we read.	DOE, 2014 and 2013
How far away?	As far as the data sheet and the voltage drop allow. Ask for the maximum run in writing.	Ohm's law; the data sheet
Standards to name	BS EN IEC 61347-1:2024 and 61347-2-13:2024 (safety), BS EN IEC 62384:2020 (performance), BS 7671:2018+A4:2026 (installation). All listed current by BSI; not read.	BSI Knowledge

Rules and standards as read on 5 November 2026. Standards were listed, not read: check the current editions.



A remote driver in a ceiling void, with an access hatch, an isolator and a labelled cable run. Schematic and not to scale: not a product or a project. Original drawing by Make Bespoke Studio.

SPECIFICATION WORDING

DRIVER TYPE AND RATING

Driver for [fitting reference]: [constant current / constant voltage], rated output [ ] mA or [ ] V, rated power [ ] W, with the fitting's load not more than [ ] per cent of that rating. Dimming input: [DALI-2 / 0-10 V current-sinking / trailing-edge phase-cut / none]. Make and model [ ] stated on the shop drawing. Driver to comply with BS EN IEC 61347-1, BS EN IEC 61347-2-13 and BS EN IEC 62384 [edition in force], with the declaration of conformity or test report supplied.

LOCATION, ACCESS AND CABLE

Driver located [in the ceiling void above / in the plinth bay], reached through a hatch not smaller than [ ] mm by [ ] mm fixed with [screws / magnets], with clear air [ ] mm around it and no insulation over it. A switched spur or isolator within reach of the hatch. Maximum cable run to the fitting [ ] m, within the driver data sheet's limit; cable [type, size]; voltage at the fitting not less than [ ] per cent of the driver output. Plug connector at the hatch; no joint behind a fixed finish; label on every run.

DIMMING COMPATIBILITY AND TEST

[Controls supplier] is to confirm in writing that the driver and the [dimmer / controller] are compatible, the number of drivers per [dimmer / bus] [ ] and the lowest level achieved [ ] per cent. One fitting is to be tried on the real control chain over its whole range and signed off by [lighting designer] before production. A change of driver after approval of the shop drawing is a variation.

REPLACEMENT, SPARES AND HANDOVER

The driver is to be replaceable with commonly available tools, without damage to finishes, by [electrician] in not more than [ ] minutes. Spares: [ ] of each driver type, with the model labelled on each driver. Driver warranty [ ] years from [handover]. Handover pack to include driver data sheets, declarations of conformity, a wiring diagram and a schedule of driver positions and hatches.

TERMS USED

Control gear (LED driver)

A unit between the power supply and a light source that supplies it with its rated voltage or current; it can include dimming. An LED driver is LED control gear (CIE ILV 17-28-048).

Separate control gear

In SI 2021/1095, a control gear not physically integrated with a light source and placed on the market as a separate product or as part of a containing product.

Constant current, constant voltage

BS EN IEC 62384 describes LED control gear as designed to provide constant voltage or constant current. A constant-current driver holds the current and a constant-voltage driver the voltage.

Extra-low voltage

A voltage not exceeding 50 V a.c. or 120 V ripple-free d.c., whether between conductors or to earth (Approved Document P, Appendix A).

STANDARDS AND SOURCES

- SI 2021/1095, Ecodesign (Lighting Products) Regulations 2021, regs 2 and 6, Schedule 3 para 2: read 5 Nov 2026.
- Approved Document P, Electrical safety, Dwellings, 2013 edition (England): paras 1.1, 2.7 to 2.9, 3.13, Appendix A.
- BS EN IEC 61347-1:2024 and BS EN IEC 61347-2-13:2024; BS EN IEC 62384:2020; BS 7671:2018+A4:2026: current per BSI Knowledge; not read; check editions.
- CIE S 017:2020 International Lighting Vocabulary (e-ILV): terms 17-27-055, 17-28-048 to 17-28-056.
- US DOE: LED Luminaire Lifetime (3rd ed., Sept 2014); Hammer Testing Findings for SSL Luminaires (Dec 2013): dated; general-lighting luminaires.

Full guide: https://makebespoke.com/trade/technical/led-drivers-for-decorative-luminaires. Make Bespoke Studio coordinates manufacture through its partner workshops. Figures are guidance only and your specification governs; some may be superseded, so contact the studio to verify.