

Tape Light Solutions (240 V~)

The Lutron tape light solution takes scene control to the next level, offering a simple and seamless way to add accent lighting to Lutron connected home projects.

Built on the ultra-reliable Lutron Clear Connect–Type X wireless technology, Lutron tape light wireless controllers are native components within the Lutron platform including controls, apps, programming software, and Lutron Connect cloud services.

A complete Lutron tape light solution consists of field-cutable LED tape, a wireless controller with integrated LED drivers, high-reliability punch connectors, dedicated wiring, and a power supply or interface. For an added level of quality, install the tape light inside the Lutron LED tape extrusions.

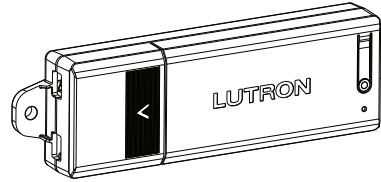
Features

Lighting System

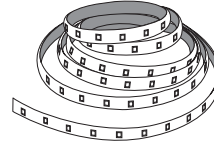
- Seamless integration with HomeWorks QSX and RadioRA 3
- User-programmable intensity and color temperature presets
- Warm dim to mimic the dimming curve of an incandescent lamp
- Automatically changes color temperature based on time of day
- Manual adjustments via the app or integration

Multi-Channel Wireless Controller

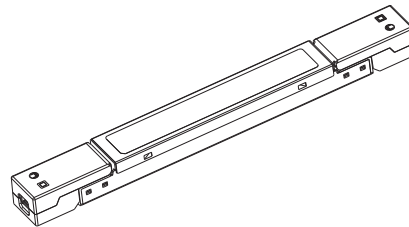
- 5-Channel, continuous, flicker-free dimming from 100% down to 0.1% of measured light output¹
- 96 W rated load (up to 10 m of 5-channel LED tape)
- 50,000 hours rated lifetime
- Uses Clear Connect–Type X wireless communication
- Compact, easy to hide



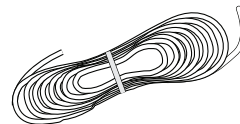
Multi-channel Wireless Controller



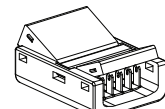
LED Tape



Power Interface



Cable



Connectors

¹ Tunable white performance is maintained from 100% to 1%.

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Model Numbers

Kits

| Model Number | | Description |
|----------------|----------------|---|
| HomeWorks QSX | RadioRA 3 | |
| HWLE-MTK-RT-IN | RRLE-MTK-RT-IN | RGB + Tunable White Kit <ul style="list-style-type: none"> • Wireless controller (with power interface LU-PH3-B-E) • RGB + Tunable White LED Tape – 2 pc. 5 m reel; 10 m total • Wire-to-tape connectors (qty. 4) • 2-conductor cable – 1.2 m • 6-conductor cable – 2 pc. 3 m; 6 m total |

Wireless Controllers

| Model Number | | Description |
|---------------|--------------|-----------------------------------|
| HomeWorks QSX | RadioRA 3 | |
| HWLE-MWCL-WH | RRLE-MWCL-WH | Multi-channel wireless controller |

Power Devices

| Model Number | Description |
|--------------|--|
| LU-PH3-B-E | Power interface with stab-in terminals |

LED Tapes

| Model Number | Description | Reel Length | Maximum Total Tape Length per Controller |
|--------------|--|-------------|--|
| LU-T05-RT-IN | RGB + Tunable White LED Tape (RGB, 1800 K – 4000 K) ¹ | 5 m | 10 m ² |
| LU-T30-RT-IN | | 30 m | |

¹ Please refer to Lutron P/N 3691305 at www.lutron.com for further details.

² Must be split into parallel runs, each no more than 5 m. See pages 5-7 for detailed wiring.

Wiring and Mounting Hardware

| Model Number | Description |
|--------------|--|
| LU-CK1-6W | 6-pin wire-to-tape connectors (qty. 10) |
| LU-WK1-6W-E | 6 x 0.50 mm ² (22 AWG) cable – 15.2 m |

Note: LU-CK1-6W MUST be used to connect the wire to the cut tape segments. Use LU-WK1-6W-E to guarantee proper electrical connection with LU-CK1-6W.

LED Tape Extrusions¹

| Model Number | Description |
|---------------------|----------------------|
| LU-SR1-K | SR1 extrusion bundle |
| LU-SR2-K | SR2 extrusion bundle |
| LU-SR3-K (see note) | SR3 extrusion bundle |
| LU-45S-K | 45S extrusion bundle |
| LU-45T-K | 45T extrusion bundle |
| LU-RR1-K (see note) | RR1 extrusion bundle |
| LU-MI1-K | MI1 extrusion bundle |

¹ Please refer to Lutron P/N 3691292 at www.lutron.com for further details and accessory packs.

NOTE: SR3 and RR1 extrusions do not fit the 6-pin wire-to-tape connectors. Connections inside the SR3 and RR1 extrusions must be through the reel's pre-soldered wire.

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Specifications

Wireless Controller

Regulatory Approvals

- Lutron Quality Systems registered to ISO 9001:2015
- CE and UKCA certified
- RoHS and REACH compliant

Electrical

- Multi-channel wireless controller
 - Input: 24 V== 4.0 A
 - Output: 24 V== 96 W max
- Output short-circuit and overload-protection
- Class III independent lamp control gear

Environmental

- Ambient operating temperature: 0 °C to 40 °C
- Relative humidity: 0% to 90% non-condensing
- Indoor use only

Warranty

- For warranty information, please visit www.lutron.com/europe/service-support
- The warranty will not cover issues caused by use of incompatible devices (including non-Lutron LED tape and/or power supplies).

Power Interface

Regulatory Approvals

- Lutron Quality Systems registered to ISO 9001:2015
- CE and UKCA certified
- RoHS and REACH compliant

Electrical

- Operating voltage: 240 V~ 50/60 Hz
- Built-in thermal protection
- Open-circuit protected output
- Short-circuit and overload-protected output
- Output: 24 V== constant voltage at high-end
- Output load range: 2 W to 96 W at high-end
- Class II per IEC61347

Features

- Powers up to three Lutron tape light controllers
- Class III separation

Environmental

- Ambient operating temperature: 0 °C to 40 °C
- Indoor use only
- IP rating: IP20
- Relative humidity: 5% to 95% non-condensing

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Wiring

Power Interface (LU-PH3-B-E)

- Powers up to three wireless controllers and 96 W of LED tape meeting the following conditions:

| LED Tape Wiring Requirements | |
|--|------------|
| Maximum tape wattage per controller | 96 W |
| Maximum tape wattage per LU-PH3-B-E ¹ | 96 W total |
| Maximum total length of a tape run ^{2,3} , regardless of whether tape is in a single segment or broken up by cables | 5 m |

¹ Total of all tape powered by interface, regardless of number of controllers used.

² See Application Note #830 ([P/N 048830](#)) at [www.lutron.com](#) for examples.

³ Applies for all tapes, regardless of W/m.

- If wireless controllers are programmed in separate zones, certain wiring configurations are better at minimizing any interactions between zones:
 - **GOOD:** LED +/- wires are in a T-tap configuration to one power interface (**Diagram B on page 6**)
 - **BETTER:** LED +/- wires are in a homerun configuration to one power interface (**Diagram A on page 5**)
 - **BEST:** Each controller is powered by its own dedicated power interface
- If wireless controllers are programmed in a single zone, LED+ and LED- wires can be wired either in a homerun or T-tap configuration (**Diagram A or Diagram B on pages 5 and 6**) without concern of interaction between controllers

Note: Wiring information on page 7 is based on (1) LU-PH3-B-E power interface powering (3) Lutron wireless controllers, each with 32 W of LED tape. For more details regarding other wiring configurations, see Application Note #830 ([P/N 048830](#)) at [www.lutron.com](#)

- Maximum wire length between the power interface and wireless controller for different wire sizes is listed below.

| Maximum Wire Length from Power Interface to the Wireless Controller: m | | | | |
|--|------------------------------|------------------------------|------------------------------|-------------------------------|
| 4.0 mm ² (12 AWG) | 2.5 mm ² (14 AWG) | 1.5 mm ² (16 AWG) | 1.0 mm ² (18 AWG) | 0.75 mm ² (20 AWG) |
| 18.3 | 11.6 | 7.6 | 4.5 | 2.7 |

- LU-PH3-B-E: Stab-in terminals accept 0.75 mm² to 1.5 mm² (20 AWG to 16 AWG) stranded or solid wire. When using larger wire sizes between the Power Interface and Wireless controller, splice a piece of 0.75 mm² to 1.5 mm² (20 AWG to 16 AWG) wire to insert into the terminals.

Note: Wire should be stripped to 8.5-9.5 mm for all terminals.

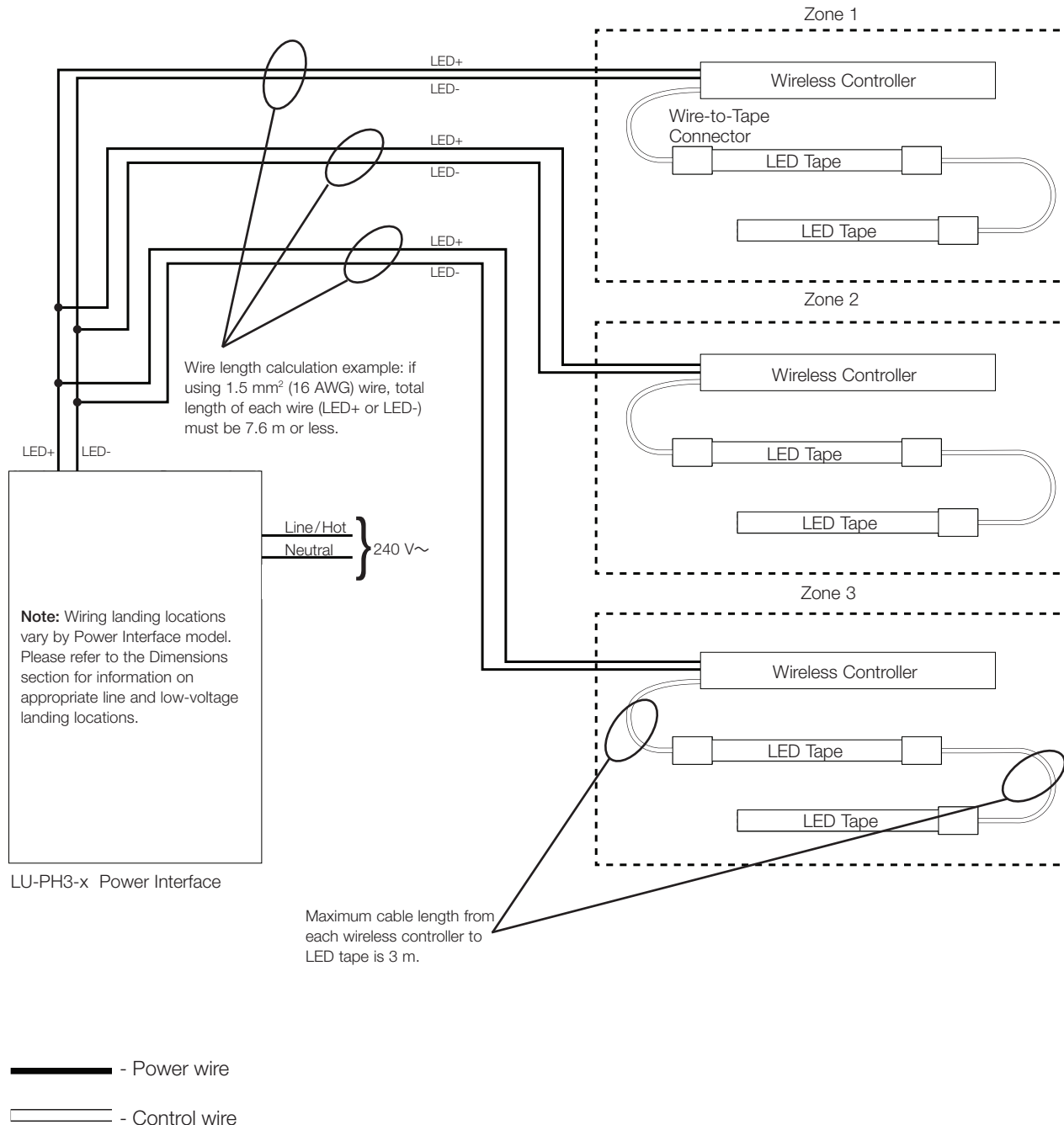
- Maximum amount of cable allowed on the output of the wireless controller is 3.0 m. The cable can be added to the beginning or can be used to break up segments of LED tape. If more control wire is needed, see Application Note #830 ([P/N 048830](#)) at [www.lutron.com](#) for guidance.
 - Up to 6 wire-to-tape connectors can be used with 3.0 m of cable. For every additional wire-to-tape connector used, the maximum cable length allowed is reduced by 150 mm.
 - 6 x 0.50 mm² (22 AWG) stranded cable is provided with the tape light kit xxLE-MTK-RT-IN*. Additional cable can be ordered as Lutron P/N LU-WK1-6W-E.

* "xx" in the model number represents either "HW" for HomeWorks or "RR" for RadioRA 3.

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Wiring (*continued*)

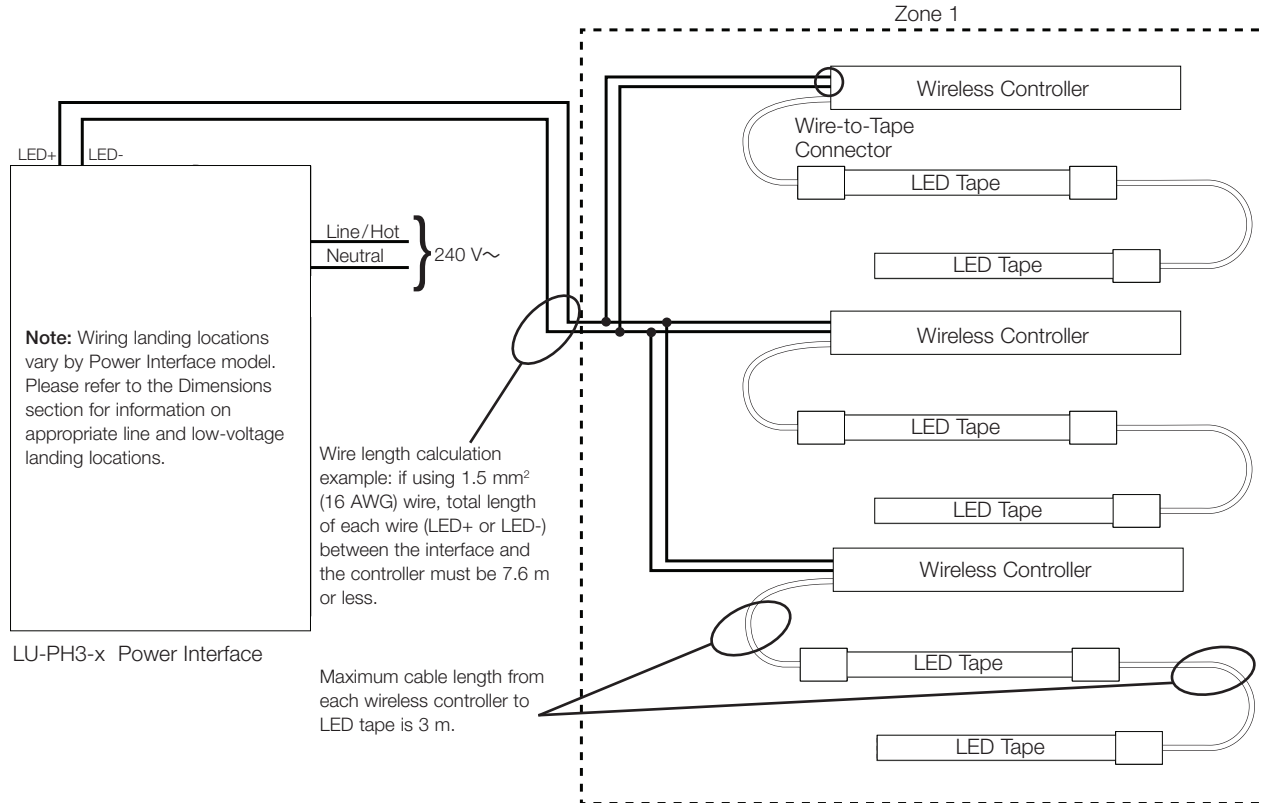
Wiring Diagram A: Homerun Wiring Configuration



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Wiring (*continued*)

Wiring Diagram B: T-tap Wiring Configuration*

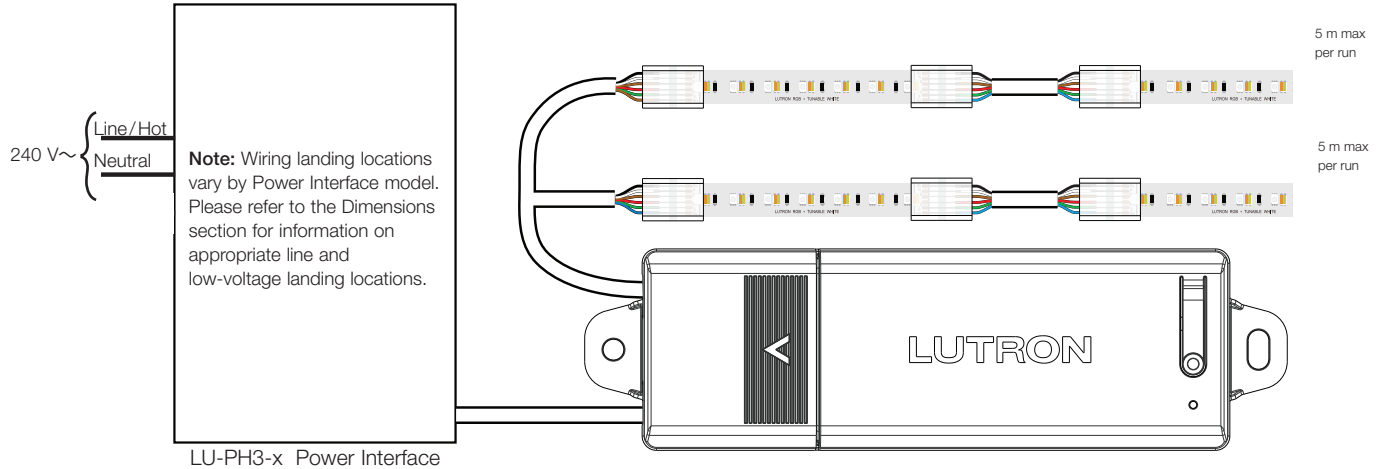


* May result in subtle interaction between controllers programmed in separate zones.

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Wiring (continued)

Example 1: Maximizing Tape on One xxLE-MWCL-WH

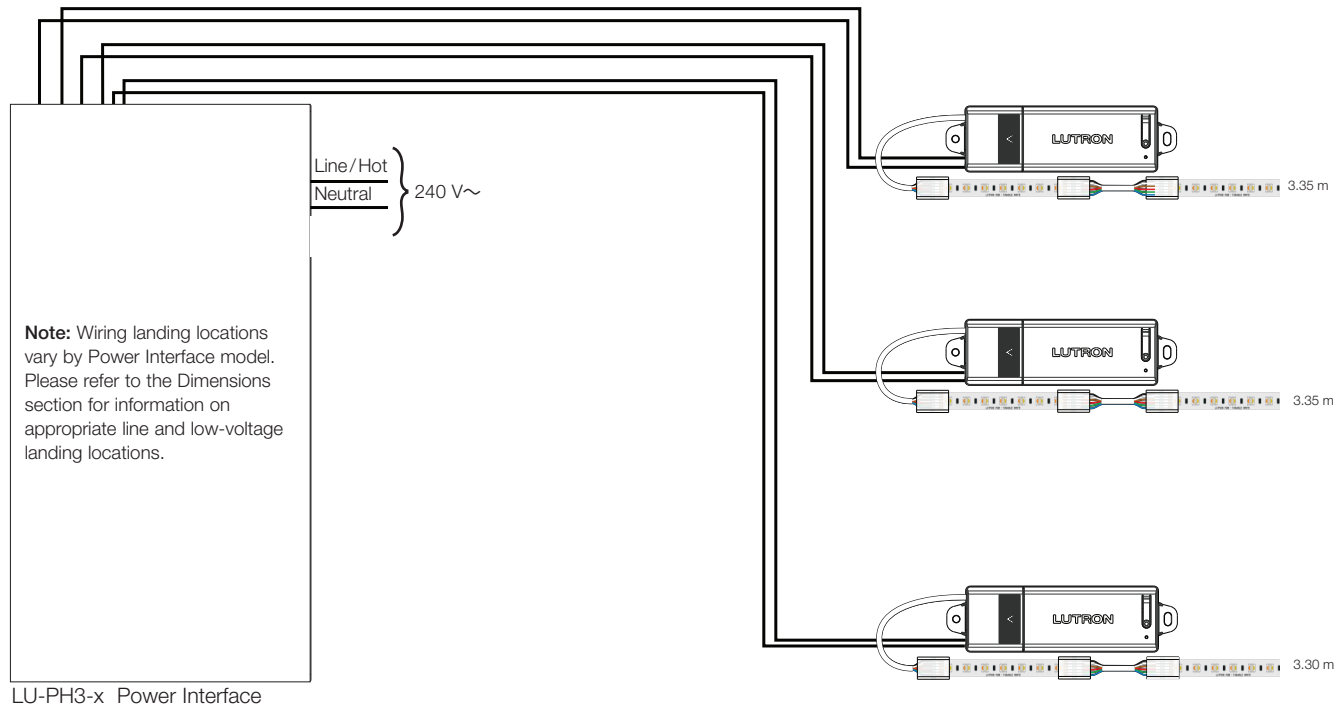


In this example, 10 m total of tape is wired to the multichannel controller. This is achieved here with two parallel runs, each 5 m long. Lengths greater than 5 m are not allowed. Since the RGB + Tunable White tape consumes about 9.6 W/m and we have utilized 10 m of tape, the LU-PH3 is at its maximum rating of 96 W and another controller cannot be added to this interface.

Note: For installations where the total length of all tape used exceeds 5 m, T-tap wiring configurations must use wire at least 0.75 mm² (18 AWG) in size for the trunk/shared wire. LU-WK1-6W-E may be used for branches, or in a homerun application.

Note: All tape connected to the controller will be controllable as one fixture.

Example 2: Maximizing Tape Across Multiple xxLE-MWCL-WH



In this example, 10 m of tape is distributed across three multichannel controllers. This is achieved here with three segments of tape, each approximately 3.35 m long. Any combination totaling 10 m or less is acceptable, as long as no tape run exceeds 5 m similar to Example 1. Since the RGB + Tunable White tape consumes about 9.6 W/m and we have utilized 10 m of tape, the LU-PH3 is at its maximum rating of 96 W. We have maximized the interface's capability, and cannot add more tape to any of the controllers.

Note: All tape connected to a controller will be controllable as one fixture, and each controller can be programmed independently.

Please see Application Note #830 (Lutron P/N 048830) at www.lutron.com for more examples.

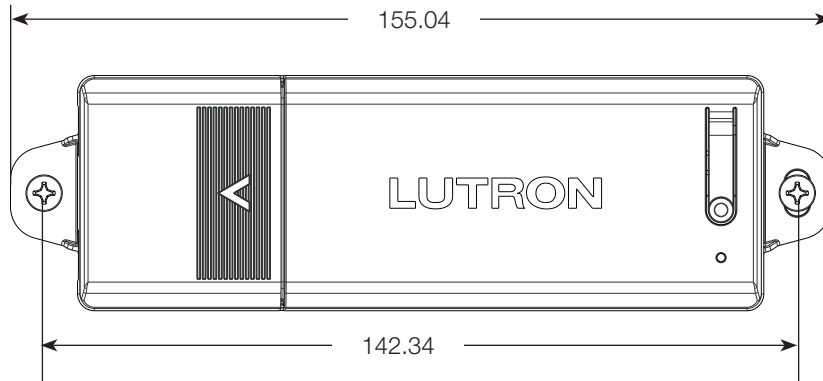
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Dimensions

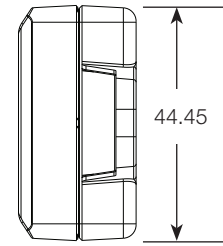
All dimensions shown as: mm

Multi-channel Wireless Controller (HWLE-MWCL-WH, RRLE-MWCL-WH)

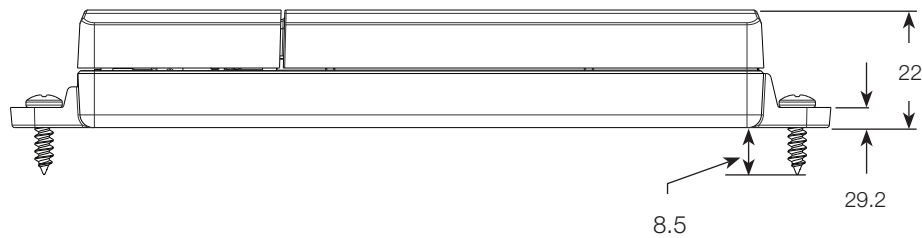
Top View



End View



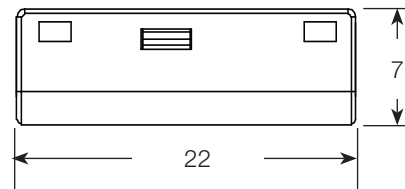
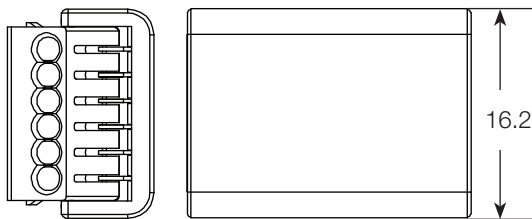
Side View



Note: The location of the wireless controller must be considered when laying out the Clear Connect - Type X network. For myLutron users, please see Application Note #842 (PN 048842) at www.lutron.com for additional information on Clear Connect - Type X Best Practices.

Note: Do not mount wireless controllers in or on metal enclosures or cabinets.

6-pin Wire-to-Tape Connector (LU-CK1-6W)

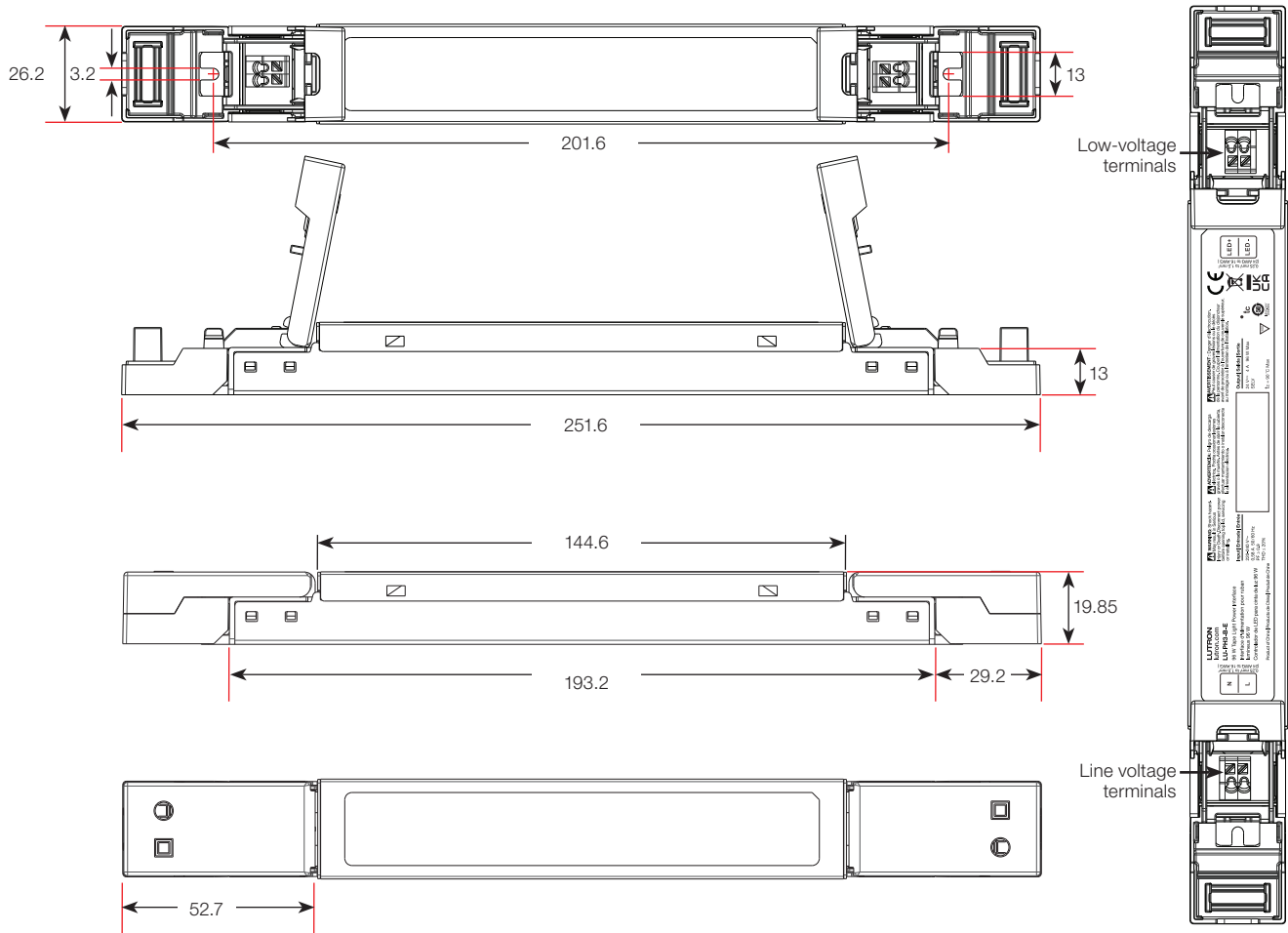


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Dimensions (*continued*)

All dimensions shown as: mm

Power Interface Enclosure (LU-PH3-B-E)



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