# Sunnata Standalone Controls

**Touch dimmer (and coordinating products) with next generation design and technology.**

## Features

- Touch technology with intuitive on/off paddle switch that fits in a standard designer wallplate opening.

- Advanced dimming technology designed for compatibility with a broad range of high efficacy bulbs.

- Dimmers and switches contain MyLevel Personalization Advanced Feature Mode to customize the control.

- Low-end and high-end adjustments to accommodate a wide range of bulbs.

- White light bar provides locator light to easily find the switch in the dark. Brightness of locator light is adjustable through MyLevel Personalization. Locator light can also be turned off.

- Can be used in single-pole, multi-location[1], or 3-way mechanical switch[2] applications (fan control is single pole only).

- Coordinating Claro and Stainless Steel wallplates available separately.

- Fan control for use with AC fan only[3]

- 100% factory tested.

- NEMA SSL-7A Compliant.

- UL® Listed.

   **NOTE:** Main control will only work with companion or accessory shown to the right. Companions and accessories are not interchangeable.



*LED+ Dimmer STCL-153M*



*Accessory Switch ST-AS (works with STCL-153M only)*



*PRO Dimmer ST-PRO-N*



*PRO Companion Dimmer ST-RD (works with ST-PRO-N only)*



*Switch ST-6ANS*



*Companion Switch ST-RS (works with ST-6ANS only)*



*Fan Control ST–FSQ-N*

[1]  Sunnata standalone controls can be controlled from multiple locations when paired with the appropriate accessory or companion control pictured to the right of the main control above.

[2]  LED+ models only. An additional wiring step is required for 3-way mechanical switch applications. Not for use in 4-way mechanical switch applications.

[3]  Use to control one paddle-type ceiling fan. Not for use with DC motor fans, fans with remote controls or Wi-Fi only fans. Not for use with bathroom or kitchen exhaust-type fans or to control lighting loads on a fan.

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# Model Numbers

## LED+ Dimmer

*LED / CFL / Incandescent / Halogen (120 V∿)*

STCL-153M-XX[1,2,3] (replaces STCL-153P-XX)    150 W (LED / CFL) or 600 W Incandescent / Halogen

ST-AS-XX[1] (works with STCL-153M only)    Accessory Switch (120 V∿, max 9 per LED+ dimmer)

## PRO LED+ Dimmer

*LED / CFL / Incandescent / Halogen / MLV / ELV / Dimmable Fluorescent Ballasts / Hi-lume LTE Drivers (120 V∿)*

ST-PRO-N-XX[1]    250 W (LED / CFL)* or 500 W Incandescent / Halogen / ELV or 400 VA MLV phase selectable, neutral dimmer

ST-RD-XX[1] (works with ST-PRO-N only)    PRO Companion dimmer (120 V∿, max of 4 per PRO dimmer)

## Switch

*Lighting and Motor Loads (120 V∿)*

ST-6ANS-XX[1]    6 A Light, 1/10 HP 3 A motor neutral wire electronic switch
ST-RS-XX[1] (works with ST-6ANS only)    Companion switch (120 V∿, max of 4 per Sunnata switch)

## Fan Control

*Paddle-type Ceiling Fan (120 V∿)*

ST-FSQ-N-XX    1.5 A max. one (1) paddle-type AC ceiling fan only

**Notes:**

[1] XX" represents the color code.

[2] For clamshell packaging add "H" after "153M".

[3] For clamshell packaged product for Canada add "-C" after the color code.

**◈LUTRON** SPECIFICATION SUBMITTAL                                        Page

| Job Name: | Model Numbers: |
|-----------|----------------|
| Job Number: | |

## Specifications

### Regulatory Approvals

- UL® Listed to U.S. and Canadian safety requirements
  (UL 1472 / CSA C22.2 184.1)
- NOM
- NEMA SSL-7A-2015 forward-phase compliant
- FCC, IC (not applicable to ST-AS)

### Fan Speed Controls Standards

- UL® 1917
- CSA C22.2 No. 156

### Environment

- For indoor use only
- Operating temperatures 32 °F (0 °C) to 104 °F (40 °C)

### Performance

- Power-failure memory
- Touch the dimmer to go to any light level
  (-PRO-N, -RD, and -153M only)
- Electrostatic discharge tested
- Precise color matching
- Includes a Front Accessible Service Switch (FASS) for
  safe bulb replacement (not applicable to ST-AS)

### Application Requirements

- **When using LEDs or CFLs, only bulbs marked or
  rated as Dimmable can be used.**
- To access our mobile friendly online tool of
  DIMMABLE LEDs visit www.lutron.com/LEDfinder

### Warranty

- 1 Year Limited Warranty.
  For additional Warranty information, please visit
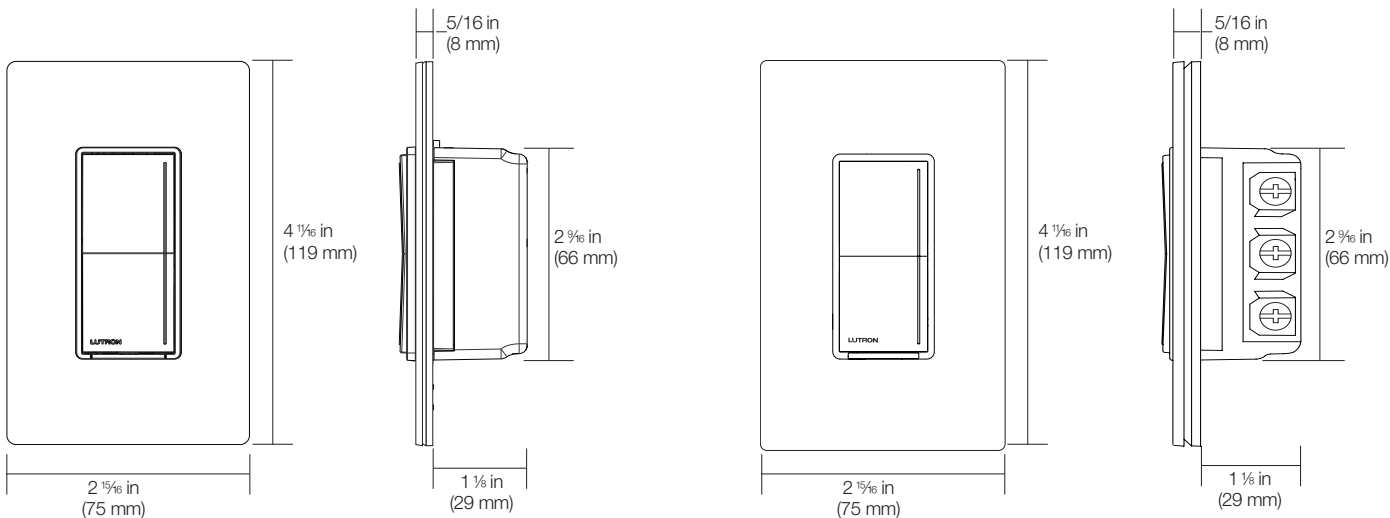  www.lutron.com/TechnicalDocumentLibrary/
  369-119_Wallbox_Warranty.pdf

## LED+ and Accessory Switch Dimensions

**Wired Product**

5/16 in
(8 mm)

4 11/16 in
(119 mm)

2 9/16 in
(66 mm)

2 15/16 in
(75 mm)

1 1/8 in
(29 mm)

**Note:** Requires a U.S. wallbox 2 ¼ in (57 mm) deep minimum.

## PRO and Companion Dimensions

**Screw Terminal Product**

5/16 in
(8 mm)

4 11/16 in
(119 mm)

2 9/16 in
(66 mm)

2 15/16 in
(75 mm)

1 1/8 in
(29 mm)

## Fan Control Dimensions

4 11/16 in
(119 mm)

2 9/16 in
(65 mm)

2 15/16 in
(75 mm)

1 9/16 in
(39 mm)

5/16 in
(8 mm)
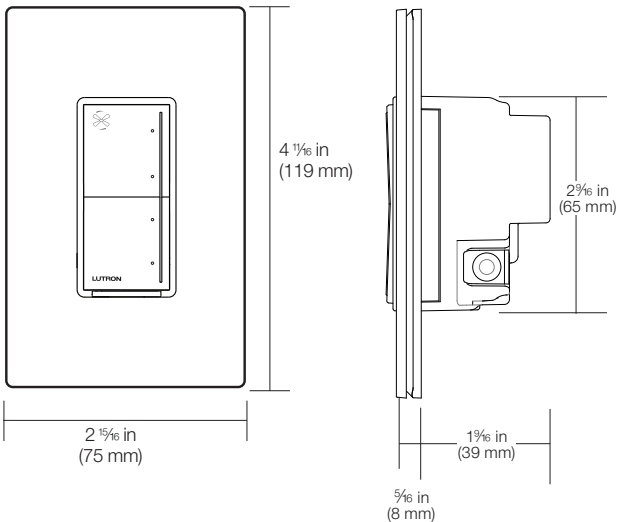
**Note:** ST-FSQ-N requires a U.S. wallbox 2 ½ in (64 mm) deep minimum.

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# Mounting and Parts Identification

Control Mounting Screws

Adapter Mounting Screws

Wallbox

Control

Wallplate Adapter

Wallplate

Wallplate Adapter / Wallplate
sold separately

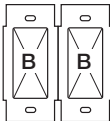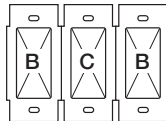| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |
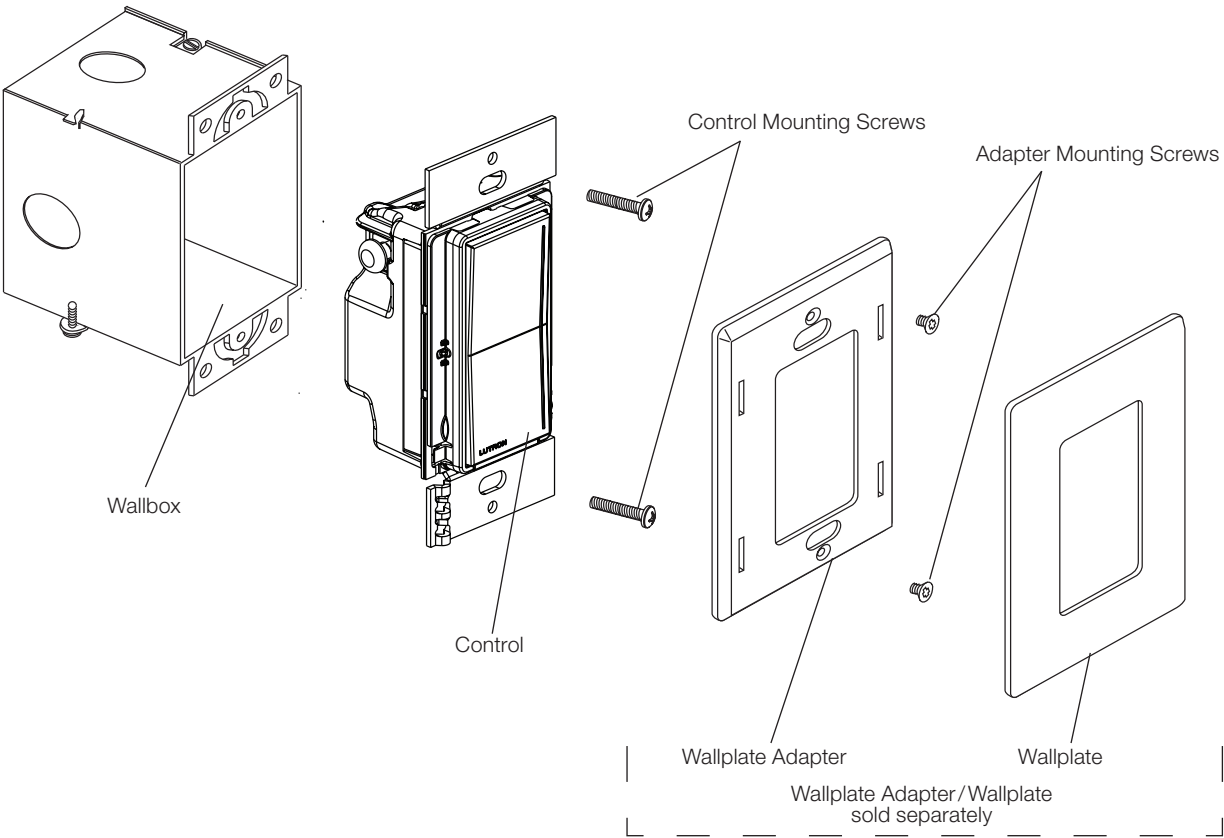
## Model Compatibility

| Model Number | Description | Neutral Required | Compatible with Mechanical Switch? | Companion | Number of Locations | Identical Companion (appearance and functionality) | Load Types Controlled (other than LED/CFL/INC/HAL) |
|---|---|---|---|---|---|---|---|
| STCL-153M | LED+ Dimmer | No | Yes[1] | ST-AS | 10 | No[2] | N/A |
| ST-PRO-N | PRO Phase Selectable Dimmer | Yes | No | ST-RD | 5 | Yes | MLV/ELV/ Dimmable Fluorescent Ballasts/ Hi-lume LTE drivers |
| ST-6ANS | Switch | Yes | No | ST-RS | 5 | Yes | Lighting and Motor loads |

[1]  LED+ models only. An additional wiring step is required for 3-way mechanical switch applications. Not for use in 4-way mechanical switch applications.
[2]  ST-AS provides matching aesthetic and switching from the remote location.

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# Load Type and Capacity



| Load Type | Minimum Load | A Not Ganged | B End of Gang | C Middle of Gang | Neutral Connection | Required Phase Mode[2] |
|---|---|---|---|---|---|---|
| **STCL-153M[3]** | | | | | | |
| LED | 1 LED | 150 W | 150 W | 150 W | No | — |
| CFL | 1 CFL bulb | 150 W | 150 W | 150 W | No | — |
| Incandescent / Halogen | 25 W | 600 W | 500 W | 400 W | No | — |
| **ST-PRO-N[3,4]** | | | | | | |
| LED | 1 LED | 250 W | 200 W | 150 W | Required[1] | Either |
| MLV Transformer with LEDs | See Application Note #559 (P/N 048559) at www.lutron.com No Derating Required | | | | | Forward |
| ELV Transformer with LEDs | | | | | | Reverse |
| MLV Transformer with Halogen | 10 W | 400 VA (300 W) | No Derating Required | | | Forward |
| ELV Transformer with Halogen | 10 W | 500 W | 400 W | 300 W | | Reverse |
| Incandescent / Halogen | 10 W | 500 W | 400 W | 300 W | | Either |
| Dimmable Fluorescent Ballast | 1 ballast | 3.3 A (400 VA) | No Derating Required | | | Forward |
| Hi-lume 1% 2-wire (LTE) LED Driver | 1 driver | 3.3 A (400 W) 20 drivers max. | No Derating Required | | | Forward |
| PHPM-PA / 3F and GRX-TVI[4] | 1 interface | 3 interfaces | No Derating Required | | | Forward |
| **ST-6ANS[4,5,6]** | | | | | | |
| LED Lighting | 1 LED | 6 A | 4 A | 4 A | Required[1] | — |
| Other Lighting Loads | 10 W/VA | 6 A | 4 A | 4 A | | — |
| Motor | 0.08 A | 1/10 HP  3 A | 1/10 HP  3 A | 1/10 HP  3 A | | — |
| **ST-FSQ-N[7]** | | | | | | |
| Paddle-Type Ceiling Fan | 0.08 A | 1.5 A | 1.5 A | 1.5 A | Required[1] | — |

[1] **Neutral is required for all load types.**
[2] Phase Mode default setting is Reverse-Phase. (-PRO-N only)
[3] Do not install dimmers to control receptacles or motor operated appliances with ratings above the motor ratings listed on this table.
[4] Power boosters / Load Interfaces: -ST-PRO-N and -ST-6ANS can be used to control power boosters / load interfaces. For a list of compatiible power boosters / load interfaces see *Compatible Power Boosters and Load Interfaces*, page 9.
[5] Do not install switches to control receptacles.
[6] Switch Load Type:
 -6ANS: Designed for use with permanently installed 120 V~ incandescent, MLV, ELV, tungsten halogen, fluorescent, LED, CFL, or motor loads.
[7] Do not use to control DC motor fans, fans with remote controls, Wi-Fi only fans, lighting loads on a fan, bathroom or kitchen exhaust-type fans.
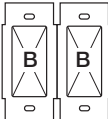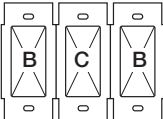
**Notes for dimming MLV fixtures:**
• The total VA rating of the transformer(s) shall not exceed the VA rating of the dimmer. The VA rating of the transformer should be written on the nameplate label or determined by contacting the manufacturer. The maximum halogen lamp wattage is typically 70% – 85% of the transformer's VA rating.
• MLV transformer loads powered by utility power and emergency backup generators should have a minimum one (1) second delay between switching power sources. Rapid non-synchronous switching can cause the transformer(s) to draw high currents which would cause breakers to trip or the dimmers controlling them to trip a protection.

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# Mixing Lamp Types

Mixing lamp types (using a combination of LED/CFL, Incandescent/Halogen bulbs) and ganging with other dimmers or electronic switches may reduce maximum wattage as shown in the chart below.

Example: If you have two dimmers ganged together and you have two 13 W bulbs installed (total LED Wattage = 26 W) on one dimmer, you may add up to 300 W of incandescent or halogen lighting to that one dimmer. Repeat the exercise for the other dimmer with which it is ganged.

| Total LED/CFL Wattage | | Total Incandescent/Halogen Wattage | | | | | |
|---|---|---|---|---|---|---|---|
| | | A Not Ganged | | B End of Gang | | C Middle of Gang | Neutral Connection |
| **STCL-153M[1]** | | | | | | | |
| 0 W | + | 600 W | Or | 500 W | Or | 400 W | |
| 1 W-25 W | + | 500 W | Or | 400 W | Or | 300 W | |
| 26 W-50 W | + | 400 W | Or | 300 W | Or | 200 W | |
| 51 W-75 W | + | 300 W | Or | 200 W | Or | 100 W | No |
| 76 W-100 W | + | 200 W | Or | 100 W | Or | 50 W | |
| 101 W-125 W | + | 100 W | Or | 50 W | Or | 0 W | |
| 126 W-150 W | + | 0 W | Or | 0 W | Or | 0 W | |
| **ST-PRO-N[1]** | | | | | | | |
| 0 W | + | 500 W | Or | 400 W | Or | 300 W | |
| 1 W-50 W | + | 400 W | Or | 300 W | Or | 200 W | |
| 51 W-100 W | + | 300 W | Or | 200 W | Or | 100 W | |
| 101 W-150 W | + | 200 W | Or | 100 W | Or | 0 W | Required |
| 151 W-200 W | + | 100 W | Or | 0 W | Or | 0 W | |
| 201 W-250 W | + | 0 W | Or | 0 W | Or | 0 W | |

[1] Do not install dimmers to control receptacles or motor-operated appliances.

## Compatible Power Boosters and Load Interfaces

Some local controls can be used to control power boosters or load interfaces. Up to three power boosters or load interfaces can be used with one control. See table below for a list of controls and compatible power boosters and load interfaces.
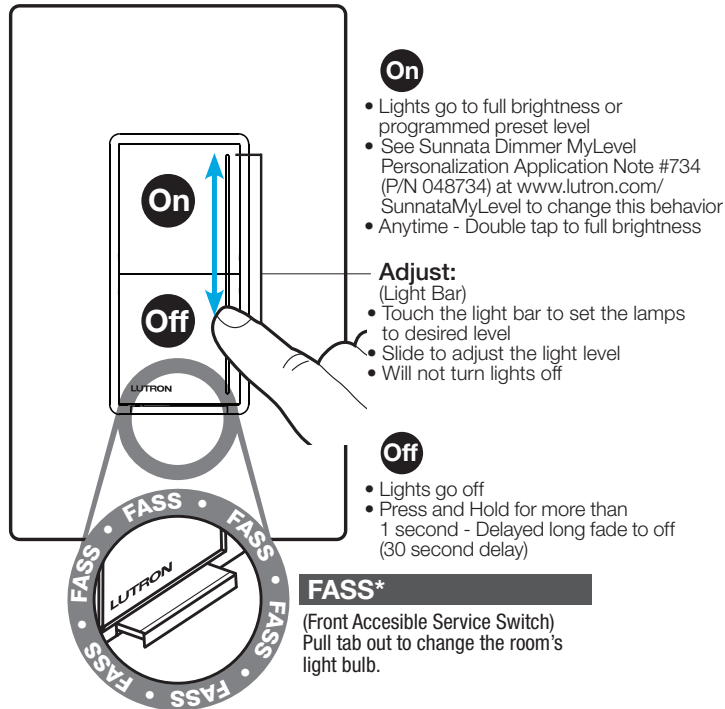
| Control | Phase Adaptive Power Modules: PHPM-PA-120-WH; PHPM-PA-DV-WH | 3-wire Fluorescent Power Modules: PHPM-3F-120-WH; PHPM-3F-DV-WH | Switched Power Module: PHPM-SW-DV-WH | 0–10 V⎓ Interface and Switching Module: GRX-TVI |
|---|---|---|---|---|
| STCL-153M | | | | |
| ST-PRO-N | ✓ | ✓ | | ✓ |
| ST-6ANS | | | ✓ | |

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# Operation

## LED+ Dimmer
Dimming from LED+ dimmer only

**On**
- Lights go to full brightness or programmed preset level
- See Sunnata Dimmer MyLevel Personalization Application Note #734 (P/N 048734) at www.lutron.com/SunnataMyLevel to change this behavior
- Anytime - Double tap to full brightness

**Adjust:**
(Light Bar)
- Touch the light bar to set the lamps to desired level
- Slide to adjust the light level
- Will not turn lights off

**Off**
- Lights go off
- Press and Hold for more than 1 second - Delayed long fade to off (30 second delay)

**FASS***
(Front Accesible Service Switch) Pull tab out to change the room's light bulb.

## Accessory Switch
ON/OFF only from accessory switches

**On**
- Lights go to full brightness or programmed preset level of the main dimmer
- Anytime - Double tap to full brightness

**Off**
- Lights go off
- Press and Hold for more than 1 second - Delayed long fade to off (30 second delay)
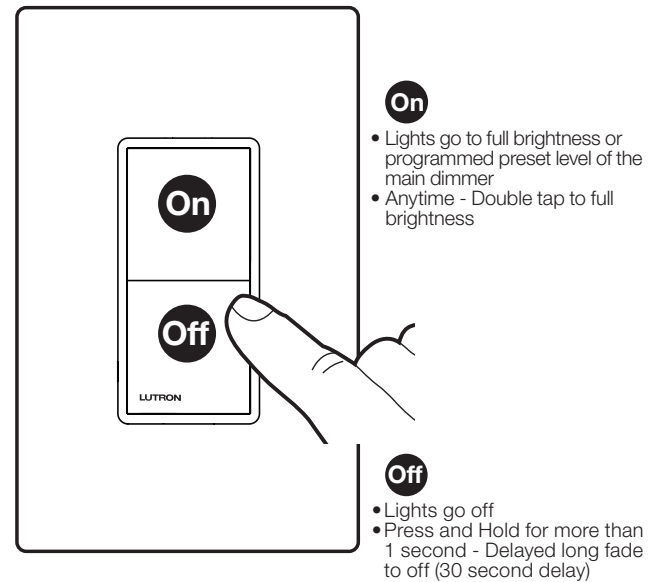
## PRO Dimmer and Companion Dimmer
Dimming from PRO dimmer and all companion dimmer locations

**On**
- Lights go to full brightness or programmed preset level
- See Sunnata Dimmer MyLevel Personalization Application Note #734 (P/N 048734) at www.lutron.com/SunnataMyLevel to change this behavior
- Anytime - Double tap to full brightness

**Adjust:**
(Light Bar)
- Touch the light bar to set the lamps to desired level
- Slide to adjust the light level
- Will not turn lights off

**Off**
- Lights go off
- Press and Hold for more than 1 second - Delayed long fade to off (30 second delay)

**FASS***
(Front Accesible Service Switch) Pull tab out to change the room's light bulb.

## Switch and Companion Switch

**On**
- Lights or load turns on
- See Sunnata Switch MyLevel Personalization Application Note #793 (P/N 048793) at www.lutron.com/SunnataMyLevel to change the appearance of the light bar

**Off**
- Lights or load turns off
- Press and Hold for more than 1 second - Delayed off (30 second delay)

**FASS***
(Front Accesible Service Switch) Pull tab out to change the room's light bulb.
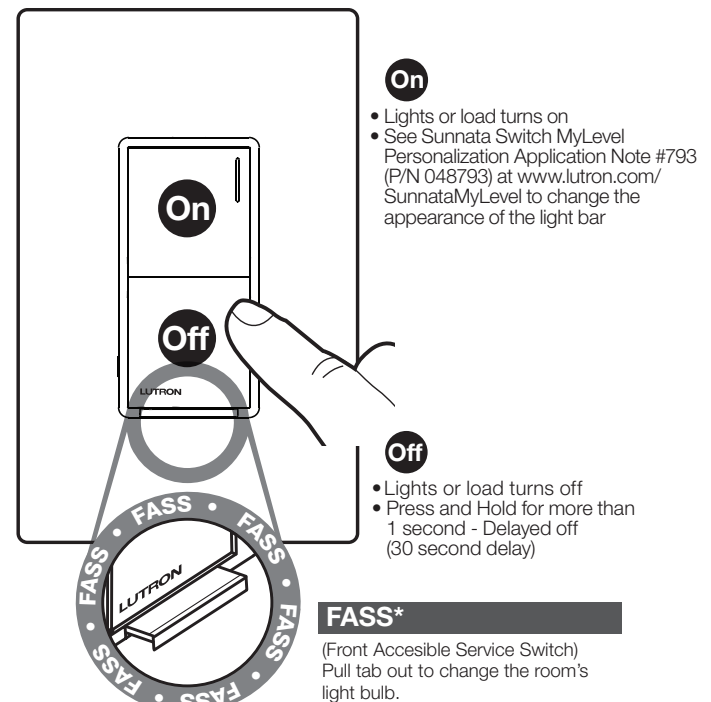
* FASS switch is **ONLY** for changing light bulbs in permanently wired fixtures. Changing wiring or installing dimmers/switches/companion controls requires turning off the breaker at the breaker panel.
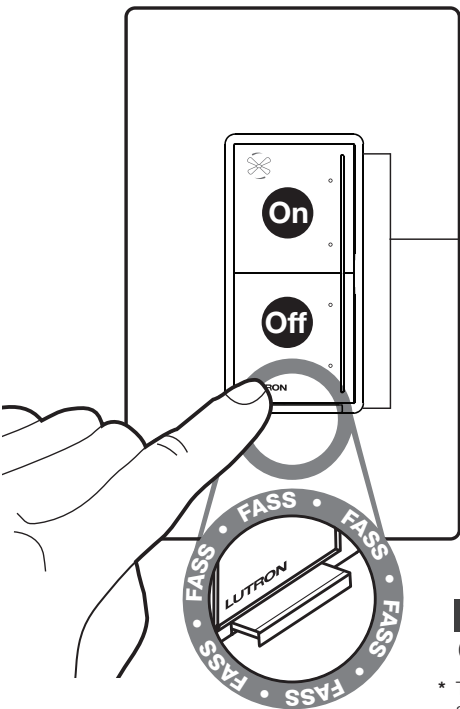
| Job Name: | Model Numbers: |
| --- | --- |
| Job Number: | |

# Operation (continued)

*Fan Control*

**On**
- Default – Fan goes to previous fan speed
- See Sunnata Advanced Feature Mode Application Note #734 (P/N 048734) at www.lutron.com/SunnataMyLevel to change this behavior
- Anytime – Double tap to maximum speed

**Adjust:**
(Light Bar)
- Touch light bar to set fan to any one of the 4 speeds (High, Medium-High, Medium and Low)

**Off**
- Fan turns off

**FASS***

(Front Accessible Service Switch)

\* To service or clean the fan, remove power by pulling out the FASS as far as possible. To restore power after servicing the load, push the FASS back in completely.

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# MyLevel Personalization Advanced Features

Sunnata dimmers, switches and fan controls contain advanced features that allow users to customize the control to meet their specific needs. For a detailed description of the features and uses, please refer to the Sunnata Dimmer and Fan Control MyLevel Personalization Application Note #734 (P/N 048734) or Sunnata Switch MyLevel Personalization Application Note #793 (P/N 048793) at www.lutron.com/SunnataMyLevel. Before entering MyLevel, it is important to have a good understanding of the features.

| Available Dimmer MyLevel Personalization Advanced Features | |
|---|---|
| **Feature** | **Description** |
| High-end trim | Select the maximum available light limit. Default - Highest level of trim range. |
| Low-end trim | Select the minimum available light limit. Default - Middle level of trim range. |
| Preset light level | Change the behavior of the control when the ON button is pressed from the OFF state to ON. Default - Tapping the ON button always sets the lights to full (locked preset at high-end). |
| Light bar brightness | Select between high, medium, and low brightness of the control's light bar. Default - Medium brightness. |
| Light level indicator/locator light* | Select between ON and OFF for the light bar when the lights are on (light level indicator) and when the lights are off (locator light). Default - ON/ON. |
| Phase select (PRO-N only) | Select the Phase mode in which the dimmer operates. Forward or Reverse (Default). |
| Restore factory default settings | Select to return dimmer to its original factory settings. |

* The dimmer light bar will always illuminate when interacting with the dimmer to indicate the light level setting.

| Available Switch MyLevel Personalization Advanced Features | |
|---|---|
| **Feature** | **Description** |
| Light bar brightness | Select between high, medium, and low brightness of the control's light bar. Default - Medium brightness. |
| Light level indicator/locator light | Select between ON and OFF for the light bar when the lights are on (light level indicator) and when the lights are off (locator light). Default - ON/ON. |

| Available Fan Control MyLevel Personalization Advanced Features | |
|---|---|
| **Feature** | **Description** |
| Preset fan speed | Change the behavior of the control when the ON button is pressed from the OFF state to ON. Default - Tapping the ON button sets the fan to its previous speed. |
| Light bar brightness | Select between high, medium, and low brightness of the control's light bar. Default - Medium brightness. |
| Fan speed indicator/locator light | Select between ON and OFF for the light bar when the fan is on (fan speed indicator) and when the fan is off (locator light). Default - ON/ON. |

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# Wiring Diagrams

## Single Pole Wiring: STCL-153M

Dimmer

Line/Hot

Black

Red

Blue

120 V∼ 60 Hz
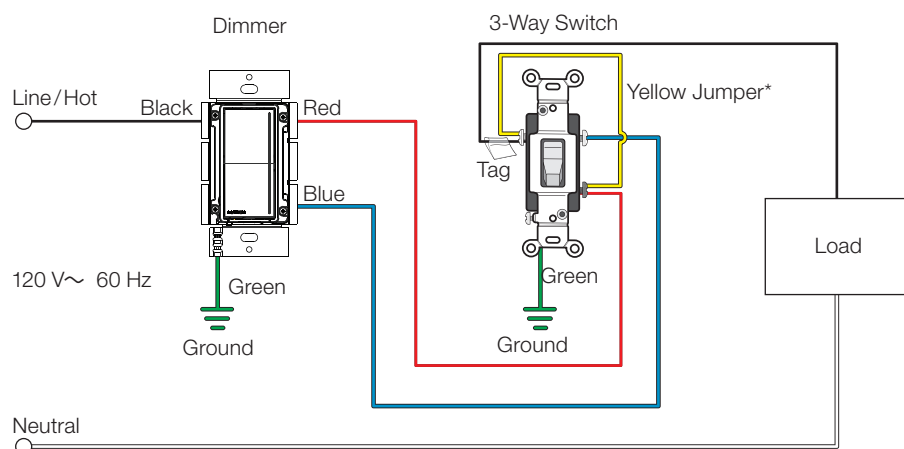
Green

Ground

Load

Neutral
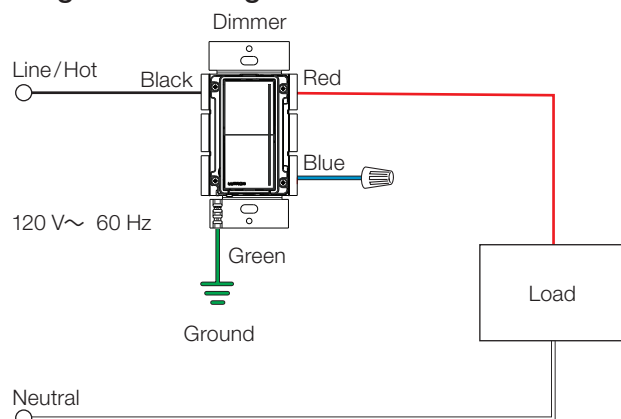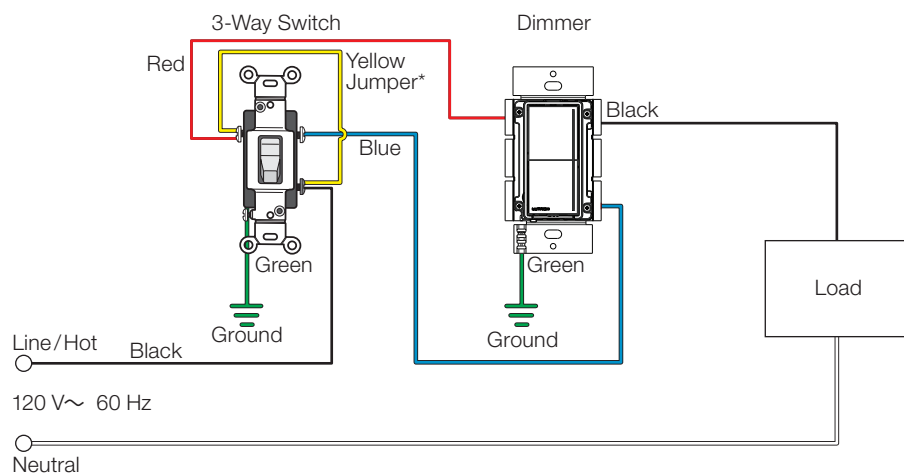
### Single Pole Application:

- Black and red wires are interchangeable in this application.
- Cap the blue wire with the supplied wire connector.
- Do not connect the blue wire to any other wiring or to ground.

## 3-Way Wiring (Using 3-Way Mechanical Switch): STCL-153M
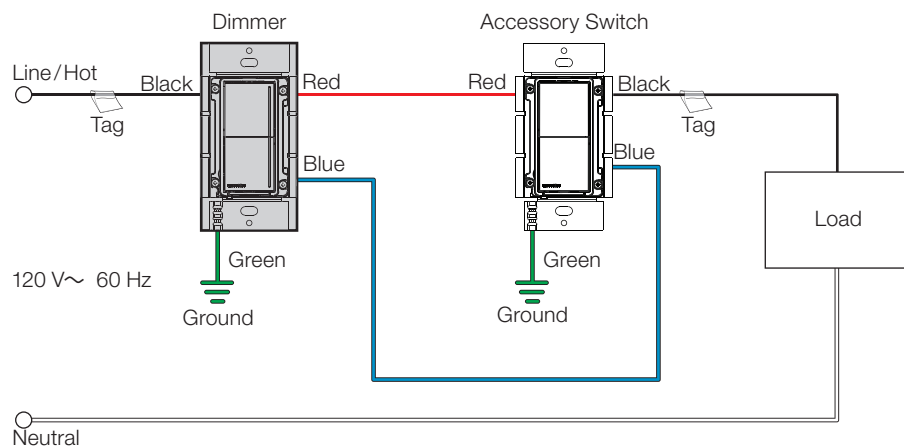
### Dimmer Line Side

Dimmer

3-Way Switch

Line/Hot

Black

Red

Blue

Yellow Jumper*

Tag

120 V∼ 60 Hz

Green

Green

Ground

Ground

Load

Neutral

### Dimmer Load Side

3-Way Switch

Dimmer

Red

Yellow Jumper*

Blue

Black

Green

Green

Line/Hot

Black

Ground

Ground

Load

120 V∼ 60 Hz

Neutral

* Yellow jumper wire is included in the dimmer packaging.

☀️LUTRON SPECIFICATION SUBMITTAL                                    Page

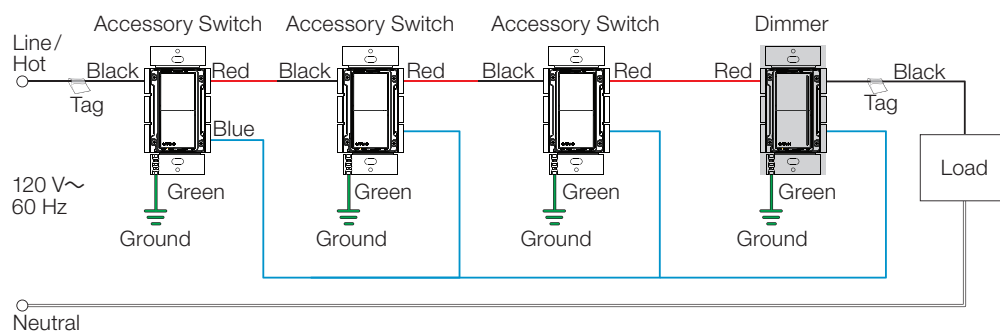| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

# Wiring Diagrams (continued)

## Wiring (Using Sunnata Accessory Switch[1]): STCL-153M with ST-AS

### Dimmer Line Side

**Note:** ST-AS is NOT compatible with STCL-153P, it works only with STCL-153M.
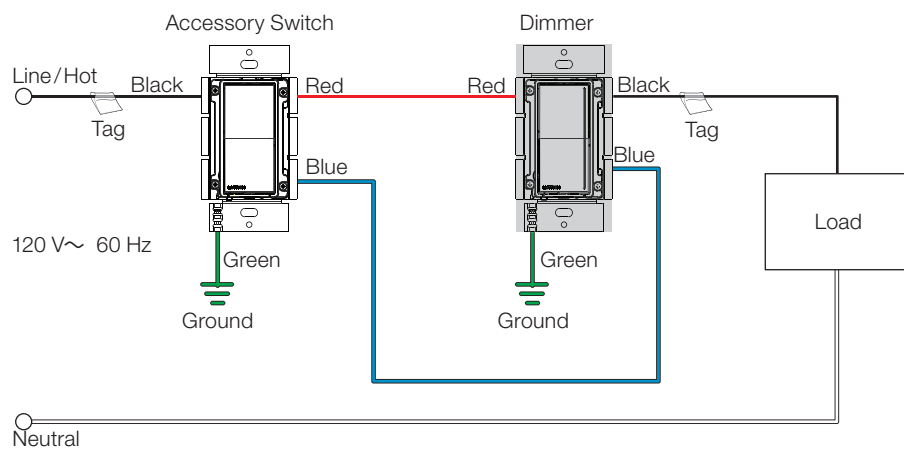
### Dimmer Load Side

# Wiring Diagrams (continued)

## 4-Way Wiring (Using Sunnata Accessory Switch(es)[1,2]): STCL-153M with ST-AS

### Dimmer Line Side
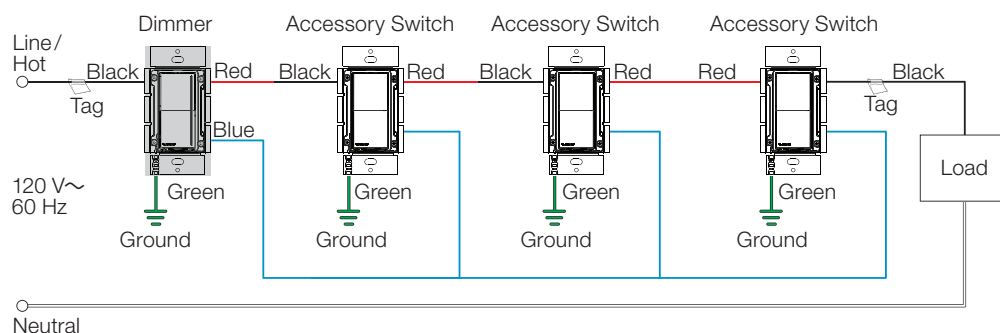


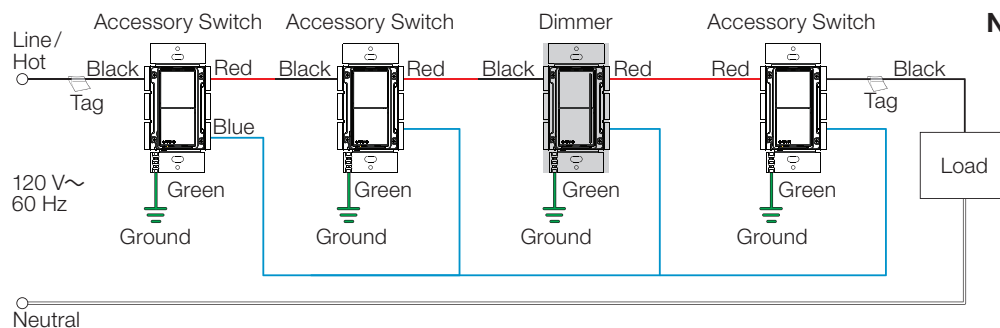**Note:** ST-AS is NOT compatible with STCL-153P, it works only with STCL-153M.

### Dimmer Load Side



### Dimmer in the Middle



**Note:** Main dimmer can go in any location.

[1]  ST-AS, Sunnata accessory switch is NOT compatible with STCL-153P, it works only with STCL-153M.
[2]  Up to nine (9) accessory switches may be connected to the dimmer. Total blue wire connection wire length may be up to 150 ft (45 m).

# Wiring Diagrams (continued)

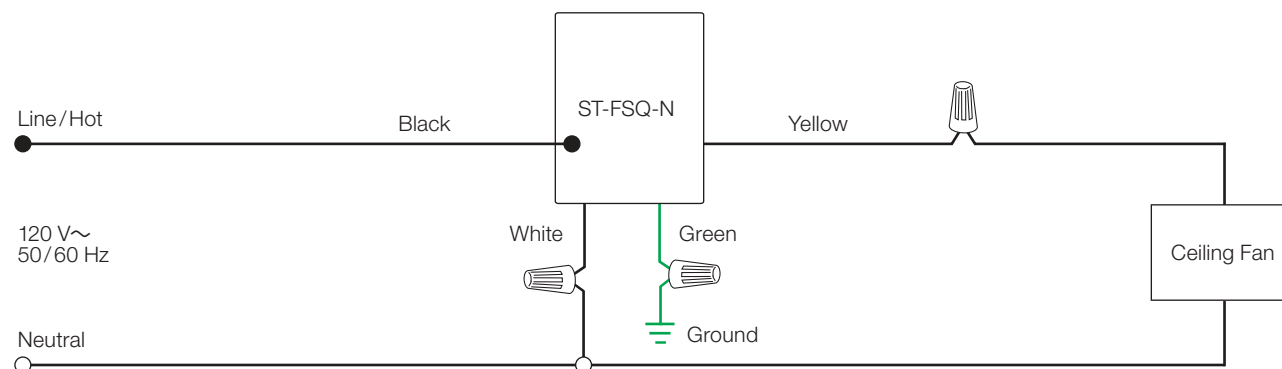## Single-Location Installation[1] with required Neutral: -PRO-N, -6ANS

Dimmer/Switch

Blue[1]

Silver

Black

Brass

Line/Hot

120 V∿
50/60 Hz

Green

Ground

Neutral
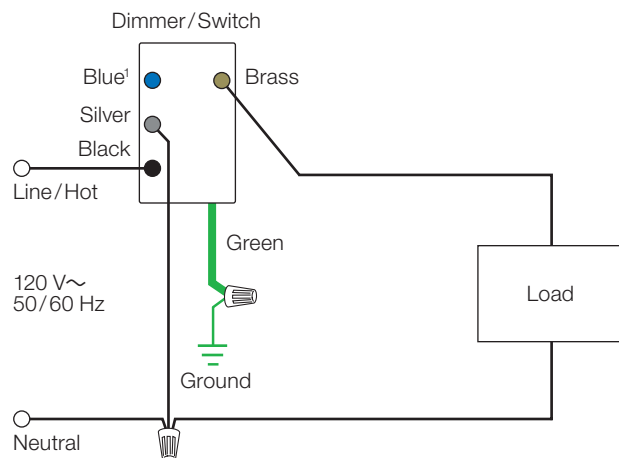
Load

**Note:** Ground connection is a 18 AWG (1.0 mm²) green wire.

[1] When using controls in single-location installations, tighten the blue terminal. Do not connect the blue terminal to any other wiring or to ground.

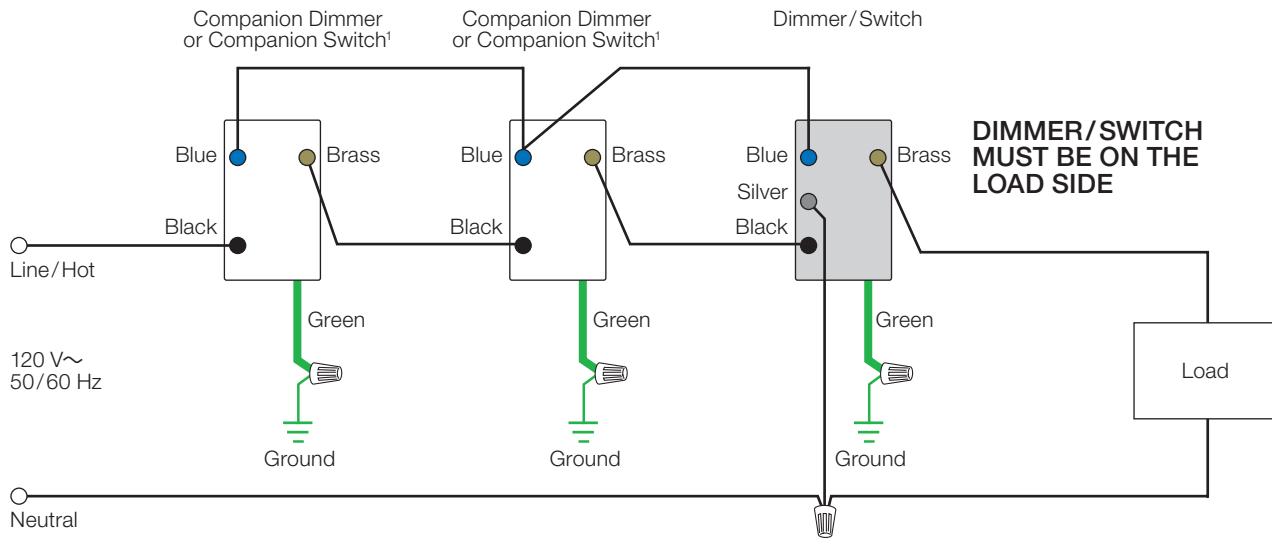## Single Pole Installation (load is controlled from 1 location): ST-FSQ-N

Line/Hot

Black

ST-FSQ-N

Yellow

120 V∿
50/60 Hz

White

Green

Neutral

Ground

Ceiling Fan

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |

## Multi-Location Installation with required Neutral: -PRO-N with -RD <u>OR</u> -8ANS <u>OR</u> -6ANS with -RS

**Note:** Dimmer and switch must be on the load side

Companion Dimmer or Companion Switch[1]

Companion Dimmer or Companion Switch[1]

Dimmer/Switch

Blue    Brass
Black

Blue    Brass
Black

Blue    Brass
Silver
Black

**DIMMER/SWITCH MUST BE ON THE LOAD SIDE**

Line/Hot

120 V∼
50/60 Hz

Green
Ground

Green
Ground

Green
Ground

Load

Neutral

**Note:** Ground connection is a 18 AWG (1.0 mm²) green wire.

[1] Up to four companion dimmers/companion switches may be connected to the dimmer/switch. Total blue terminal wire length may be up to 150 ft (45 m).
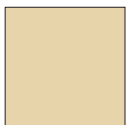
# Colors and Finishes

## Gloss - All models

| White WH | Ivory IV |
|---|---|

| Light Almond LA | Black BL |
|---|---|

## Satin Finishes - PRO, Switch and Fan models only

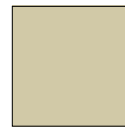| Brilliant White BW | Glacier White GL | Snow SW | Architectural White RW |
|---|---|---|---|
| Lunar Gray LG | Mist MI | Pebble PB | Cobblestone CS |
| Slate SL | Midnight MN | Biscuit BI | Sand SD |
| Taupe TP | Pumice PM | Clay CY | Sage SA |
| Espresso EP | Truffle TF | Deep Sea DE | Signal Red SR |
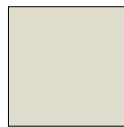
- Due to printing limitations, colors and finishes shown cannot be guaranteed to perfectly match actual product colors.
- Color chip keychains are available for more precise color matching:
  Gloss Finishes: DG-CK-1
  Satin Finishes: SF-CK-1
  For coordinating wallplates and accessories, visit lutron.com/claro

**⟡LUTRON** SPECIFICATION SUBMITTAL                     Page

| Job Name: | Model Numbers: |
|---|---|
| Job Number: | |