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# Maestro Wireless Dimmers

Maestro Wireless dimmers function much like standard dimmers, but can be controlled from Picom wireless controls and Lutron® Radio Powr Savr™ sensors. Local lighting controls are useful in locations where single circuits of lighting need to be dimmed or switched.

Maestro Wireless dimmers incorporate advanced features such as fade on/fade off, long fade off, and rapid full on.

Maestro Wireless local controls include a Front Accessible Service Switch (FASSTM) for safe lamp replacement. Maestro Wireless controls install in single-pole or multi-location applications.

# **Model Numbers**

## **Dimmers**

Halogen/Incandescent/Magnetic Low-voltage

MRF2-600M-XX 600 W Incandescent

Dimmer 120 V~

MRF2-6MLV-XX 600 W/600 VA Incandescent/

MLV Dimmer 120 V∼

600 W/600 VA MRF2-6ND-120-XX\*

Spec Grade Neutral wire

Dimmer 120 V~

1000 W/1000 VA MRF2-10D-120-XX

Spec Grade Dimmer 120 V~

3-wire Fluorescent

MRF2-F6AN-DV-XX\* 6 A 3-wire Fluorescent

> Spec Grade Neutral wire Dimmer 120-277 V∼

Electronic Low-Voltage Dimmer—

Available July 2010

Job Name:

Job Number:

MRF2-6ELV-120-XX\* 600 W ELV Dimmer 120 V~

Neutral optional





# Companion Dimmer



# Companion Controls

Claro

Gloss Finishes

MA-R-XX Companion Dimmer 120 V∼ MA-R-277-XX Companion Dimmer 277 V~

#### Satin Colors® Satin Finishes

MSC-AD-XX Companion Dimmer 120 V∼ MSC-AD-277-XX Companion Dimmer 277 V∼

"XX" in the model number represents color/finish code.

#### **ELUTRON.** SPECIFICATION SUBMITTAL

Model Numbers:

<sup>\*</sup> NEUTRAL WIRE REQUIRED.

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# Maestro Wireless Switches

Maestro Wireless switches function much like standard switches, but can be controlled from Picom wireless controls and Lutron® Radio Powr Savr™ sensors. Local lighting controls are useful in locations where single circuits of lighting need to be switched.

Maestro Wireless local controls include a Front Accessible Service Switch (FASS™) for safe lamp replacement. Maestro Wireless controls install in single-pole or multi-location applications.



# Companion Switch



# **Model Numbers**

#### **Switches**

Lighting and motor loads

MRF2-6ANS-XX\* 6 A Lighting/3 A Fan (1/10 HP

motor), Electronic Switch

120 V~

MRF2-8ANS-120-XX\* 8 A Lighting, 5.8 A Fan (1/4 HP

motor), Spec Grade Electronic

Switch 120 V∼

MRF2-6ANS-277-XX\* 6 A Lighting, Spec Grade

Electronic Switch 277 V~

MRF2-8S-DV-XX 8 A Lighting, 3 A Fan (1/10 HP

> motor, 120 V~ only), Spec Grade Electronic Switch 120-277 V~, NO NEUTRAL

WIRE REQUIRED

# **Companion Controls**

Claro® Gloss Finishes

MA-AS-XX Companion Switch 120 V∼ MA-AS-277-XX Companion Switch 277 V∼

Satin Colors® Satin Finishes

MSC-AS-XX Companion Switch 120 V~ MSC-AS-277-XX Companion Switch 277 V∼

"XX" in the model number represents color/finish code.

## **\$\$LUTRON.** SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	

<sup>\*</sup> NEUTRAL WIRE REQUIRED.

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# Colors and Finishes

# **Gloss Finishes**



**Satin Finishes** Hot HT





PL

BI

SI

MS



Almond





TP

PD

GB

DS



**Biscuit** 





AL





Midnight MN











Greenbriar



BG





TC

GS

Due to printing limitations, colors and finishes shown cannot be guaranteed to perfectly match actual product colors.



Desert Stone

Stone

Limestone LS

Metal Finish (wallplate only)



Stainless Steel SS

When using Stainless Steel wallplates, it is recommended to order the controls in Black (BL) or Midnight (MN).

# **LUTRON.** SPECIFICATION SUBMITTAL

Job Name: N	Model Numbers:
Job Number:	

# Load Type and Capacity

Control	Voltage	Load	Minimum		Maximum Load		
	Туре	Load	Not Ganged	End of Gang	Middle of Gang	Connection	
		Incand.	25 W	600 W	500 W	400 W	1
MRF2-6ND-120 <sup>1,2,7</sup> 120 V~	MLV <sup>2</sup>	25 W/VA	450 W/ 600 VA	400 W/ 500 VA	300 W/ 400 VA	YES	
MRF2-600M <sup>1,7</sup>	120 V∼	Incand.	50 W	600 W	500 W	400 W	NO
MRF2-6MLV <sup>1,2,7</sup>	120 V~	MLV <sup>2</sup>	50 VA	450 W/ 600 VA	400 W/ 500 VA	300 W/ 400 VA	NO
MRF2-6ELV <sup>2</sup>	120 V~	ELV <sup>2</sup>	10 W	600 W	500 W	400 W	YES
		Incand.	50 W	1000 W	800 W	650 W	NO
MRF2-10D-120 <sup>1,2,7</sup>	120 V∼	MLV <sup>2</sup>	50 W/VA	800 W/ 1000 VA	600 W/ 800 VA	500 W/ 650 VA	
MRF2-F6AN-DV <sup>6,9</sup>	120−277 V~	Lighting	1 ballast 0.05 A	6 A	5 A	3 A	YES
		Lighting	25 W	8 A	6.5 A	5 A	
MRF2-8ANS-120 <sup>3,5</sup>	120 V∼	Fan Motor	0.2 A	1/4 HP 5.8 A	1/4 HP 5.8 A	1/6 HP 4.4 A	YES
		Lighting	25 W	6 A	5 A	3.5 A	
MRF2-6ANS <sup>3</sup>	120 V∼	Fan Motor	0.2 A	1/10 HP 3 A	1/10 HP 3 A	1/10 HP 3 A	YES
MRF2-6ANS-277 <sup>4</sup>	277 V∼	Lighting	25 W	6 A	5 A	3.5 A	YES
	120–277 V∼	Lighting	40 W	8 A	8 A/7 A <sup>8</sup>	7 A	NO
MRF2-8S-DV <sup>4</sup>	120 V~	Fan Motor	0.4 A	1/10 HP 3 A	1/10 HP 3 A	1/10 HP 3 A	

- 1 Dimmer Load Type: -6ND, -6MLV and -10D are designed for use with permanently installed incandescent, magnetic low-voltage, or tungsten halogen only. -600M is designed for use with permanently installed incandescent or tungsten halogen only. -6ELV is designed for use with permanently installed electronic low-voltage only. Do not install dimmers to control receptacles or motor-operated appliances.
- 2 Low-Voltage Applications: Use -6ND, -6MLV and -10D with magnetic (core and coil) low-voltage transformers only. Not for use with electronic (solid-state) low-voltage transformers. Use -6ELV with electronic (solid-state) low-voltage transformers only.

Operation of a low-voltage circuit with lamps inoperative or removed may result in transformer overheating and premature failure. Lutron strongly recommends the following:

- Do not operate low-voltage circuits without operative lamps in place.
- Replace burned-out lamps as quickly as possible.
- Use transformers that incorporate thermal protection or fused transformer primary windings to prevent transformer failure due to overcurrent.
- 3 Switch Load Type: -8ANS-120 is designed for use with permanently installed lighting loads and with fan motor loads up to 1/4 HP (5.8 A).
  - -6ANS is designed for use with permanently installed lighting loads and with fan motor loads up to 1/10 HP (3 A).
  - -8S-DV is designed for use with permanently installed lighting loads and with fan motor loads up to 1/10 HP (3 A, 120  $\vee$  only).
- 4 Switch Load Type: -6ANS-277 is designed for use with permanently installed lighting loads.
- 5 For loads larger than 8 A @ 120 V~, the -8ANS-120 switch can be used with the PHPM-SW-DV-WH power booster. For loads larger than the MRF2-6ANS-277 capacity of 6 A @ 277 V~, the -8ANS-120 can also be used with the PHPM-SW-DV-WH power booster to switch 277 V~ loads. Please note that in this application, the -8ANS-120 switch is providing an input at 120 V~ and the power booster is switching 277 V~.
- 6 Can control the following power boosters/load interfaces: Phase-adaptive Power Modules (PHPM-WBX-DV-WH), 3-wire Fluorescent Power Modules (PHPM-3F-DV-WH), Tu-Wire<sub>2</sub> Fluorescent Power Modules (PHPM-PA-DV-WH), and 0–10 V (GRX-TVI).
- 7 Can control the following power booster/load interface: Hi-Power 2-4+6m Boosters (HP-2, HP-4, HP-6) for control of most popular lighting sources including Lutrons 3-wire line voltage control fluorescent dimming ballasts (Hi-lumes, Hi-lume Compact SEns, Eco-10s, and EcoSystems).
- 8 Maximum load for double gang application is 8 A. Triple gang application derates maximum load to 7 A.
- 9 Dimmer Load Type: -F6AN is designed for use with permanently installed 3-wire line voltage control fluorescent ballasts or LED drivers only (*Hi-lume*, *Hi-lume Compact SE*, *Eco-10*, and *EcoSystem*).

#### **<b>ELUTRON**. SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	

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# **Specifications**

# Regulatory Approvals

- UL Listed.
- CSA Certified.
- FCC Approved. Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.
- Industry Canada Certified.

#### Power

Operating voltage:

120 V∼ 60 Hz

277 V~ 60 Hz (-6ANS-277, -8S-DV, -F6AN-DV)

# **Key Design Features Dimmers**

- On a single-tap, lights fade UP or DOWN.
- On a double-tap, lights go to full ON.
- When ON, press and hold to engage 20-second fade to OFF.
- Light levels can be fine-tuned by pressing and holding the dimming rocker until the desired light level is reached.
- Two-wire dimmers available.

#### Switch

- On a single-tap, lights turn ON or OFF.
- Two-wire switches available.

#### All RF Local Controls

- Tested to withstand electrostatic discharge without damage or memory loss, in accordance with IEC 61000-4-2.
- Tested to withstand surge voltages without damage or loss of operation, in accordance with IEEE C62.41-1991 Recommended Practice on Surge Voltages in Low-Voltage AC Power Circuits.
- Controls always operate locally and do not require system control.

- Power failure memory: should power be interrupted, the control will return to its previously set level prior to the interruption when power is restored.
- Uses conventional 3-way and 4-way wiring.
- Multiple location control from Dimmer/Switch and up to 9 Companion Dimmer(s)/Switch(es).
- Use Lutron® Designer (Claro® and Satin Colors®) wallplates or designer-style wallplates from other manufacturers. Wallplates are sold separately.
- Lutron Claro and Satin Colors wallplates snap on with no visible means of attachment.
- Requires a 1-gang U.S. wallbox. 3½ in (89 mm) deep recommended, 21/4 in (57 mm) deep minimum.
- Green indicator lights.

# System Communications and Capacity

- Maestro Wireless controls communicate with the Picotm wireless controls and Radio Power Savrtm sensors through radio frequency (RF).
- Maestro Wireless local controls must be located within 60 ft (18 m) line of sight or 30 ft (9 m) through walls, of Radio Power Savr sensors.
- Maestro Wireless local controls must be located within 100 ft (30 m) line of sight or 30 ft (9 m) through walls, of a Pico™ wireless control.
- Up to 10 Maestro Wireless controls can be configured to work together.

#### **Environment**

 Ambient operating temperature: 32 °F to 104 °F (0 °C to 40 °C), 0%-90% humidity, non-condensing. Indoor use only.

#### Warranty

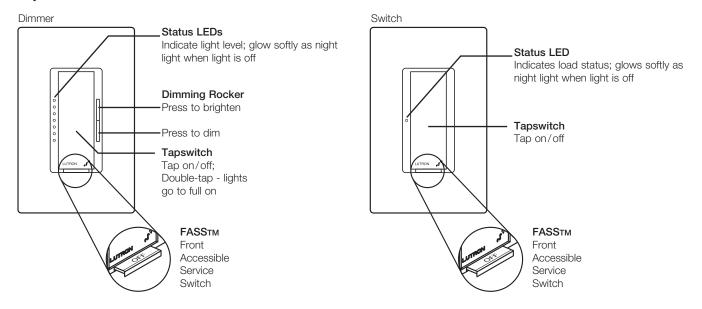
1 Year Limited Warranty.

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Job Name:	Model Numbers:
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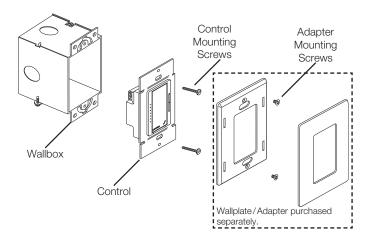
# Operation



# **IMPORTANT NOTICE:**

**FASS** - Front Accessible Service Switch - to service load, remove power by pulling the *FASS* switch out completely on either the Dimmer/Switch or Companion Dimmer/Switch. After servicing load, push the *FASS* switch back in fully to restore power to the control.

# Mounting

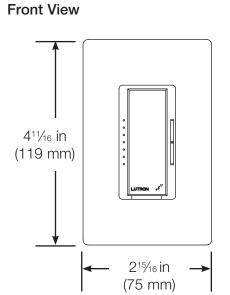


# **\$LUTRON.** SPECIFICATION SUBMITTAL

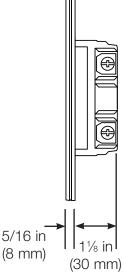
Job Name:	Model Numbers:
Job Number:	

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# **Dimensions**

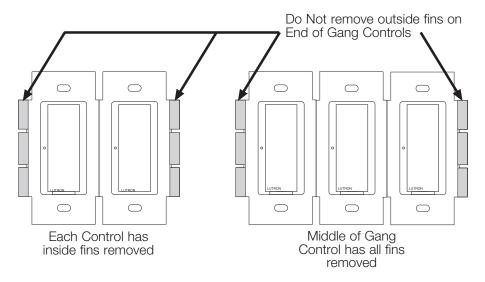






# Ganging and Derating

When ganging with other controls in the same wallbox, derating is required. See Load Type and Capacity chart. Only -8ANS controls have fins that need to be removed for multigang installations. No other controls have fins, but they must still be derated in multigang installations.



# **LUTRON.** SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	

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# Wiring Diagrams

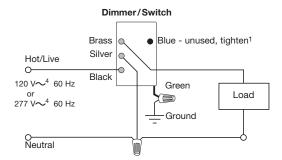
#### Single Location Installation

-600M, -6MLV, -10D, -8S-DV

# Dimmer/Switch Brass Blue - unused, tighten¹ Hot/Live O 120 V~ 60 Hz Or 277 V~ 60 Hz Neutral

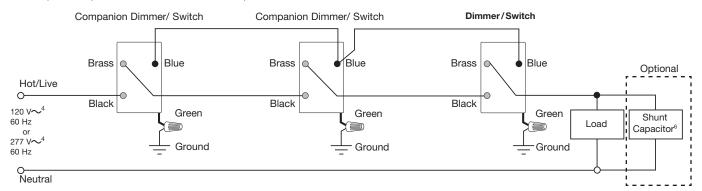
#### Single Location Installation with Neutral

-6ND, -6ELV, -6ANS-120, -8ANS-120, -6ANS-277



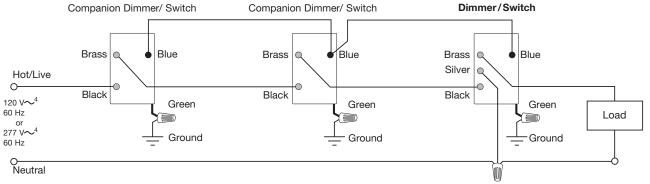
#### Multi-Location Installation<sup>2</sup>

-600M, -6MLV, -10D with MA-R/MSC-AD; -8S-DV5.6 with MA-AS/MA-AS-277 or MSC-AS/MSC-AS-277



#### Multi-Location Installation with Neutral<sup>2,3</sup>

-6ND, -6ELV with MA-R/MSC-AD; -6ANS-120, -8ANS-120 with MA-AS/MSC-AS; -6ANS-277 with MA-AS-277/MSC-AS-277



- <sup>1</sup>When using controls in single location installations, tighten the blue terminal without any wires attached. **DO NOT** connect the blue terminal to any other wiring or to ground.
- <sup>2</sup>Up to 9 Maestro Companion Dimmers/Switches may be connected to the Maestro Wireless Dimmer/Switch. Total blue terminal wire length may be up to 250 ft (76 m).
- <sup>3</sup> Neutral wire Dimmers/Switches must be connected on the Load side of a multi-location installation.
- ⁴ 120 V~: -6ND, -6ANS-120, -8ANS-120, -6ELV-120

277 V∼: -6ANS-277, 8S-DV

- <sup>5</sup> Requires MA-AS/MSC-AS for 120 V ∼ applications, and MA-AS-277/MSC-AS-277 for 277 V ∼ applications.
- <sup>6</sup> Optional Shunt Capacitor must be installed inside the load fixture or in a separate J-box.

## **<b>\*\*LUTRON.** SPECIFICATION SUBMITTAL

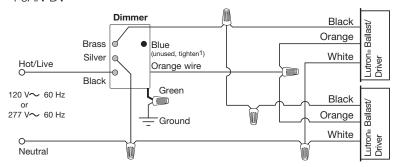
Job Name:	Model Numbers:
Job Number:	

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# Wiring Diagrams

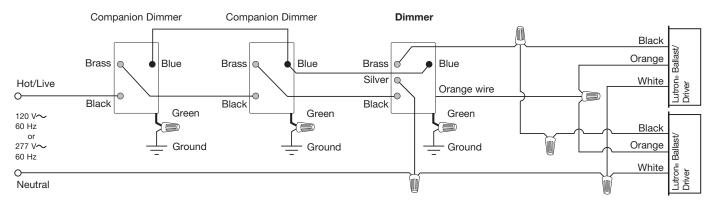
# Single Location Installation with Neutral

-F6AN-DV



#### Multi-Location Installation with Neutral<sup>2,3</sup>

-F6AN-DV with MA-R/MA-R-277 or MSC-AD/MSC-AD-2774



# **LUTRON.** SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	

<sup>&</sup>lt;sup>1</sup> When using controls in single location installations, tighten the blue terminal. DO NOT connect the blue terminal to any other wiring or to ground.

<sup>&</sup>lt;sup>2</sup>Up to 9 Maestro Companion Dimmers may be connected to the Maestro Wireless Dimmer. Total blue terminal wire length may be up to 250 ft (76 m).

<sup>&</sup>lt;sup>3</sup> Neutral wire Dimmers must be connected on the Load side of a multi-location installation.

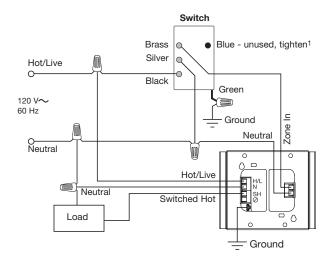
 $<sup>^4</sup>$  Requires MA-R/MSC-AD for 120 V $\sim$  applications, and MA-R-277/MSC-AD-277 for 277 $\sim$  V applications.

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# Wiring Diagrams

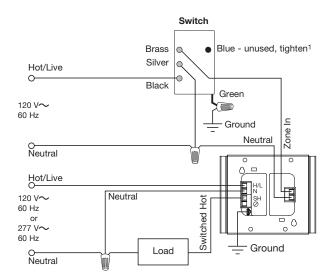
# Single Location Installation with Power Booster Single Feed

-6ANS-120, -8ANS-120 with PHPM-SW-DV-WH



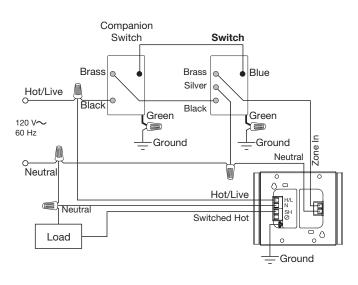
# Single Location Installation with Power Booster Dual Feed

-6ANS-120, -8ANS-120 with PHPM-SW-DV-WH



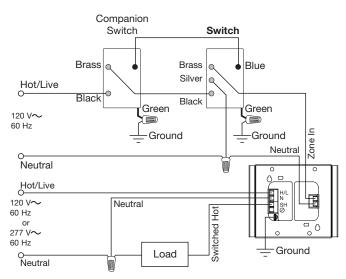
## Multi-Location Installation with Power Booster<sup>2,3</sup> Single Feed

-6ANS-120, -8ANS-120 with MA-AS/MSC-AS and PHPM-SW-DV-WH



#### Multi-Location Installation with Power Booster<sup>2,3</sup> Dual Feed

-6ANS-120, -8ANS-120 with MA-AS/MSC-AS and PHPM-SW-DV-WH



<sup>&</sup>lt;sup>1</sup> When using controls in single location installations, tighten the blue terminal. **DO NOT** connect the blue terminal to any other wiring or to ground.

#### **LUTRON.** SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	

<sup>&</sup>lt;sup>2</sup>Up to 9 Maestro Companion Switches may be connected to the Maestro Wireless Switch. Total blue terminal wire length may be up to 250 ft (76 m).

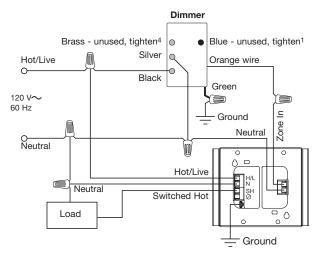
<sup>&</sup>lt;sup>3</sup> Neutral wire Switches must be connected on the Load side of a multi-location installation.

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# Wiring Diagrams

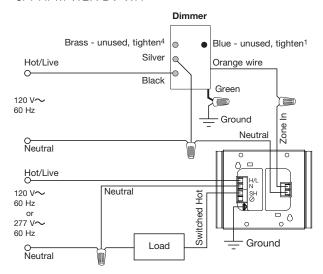
# Single Location Installation with Power Booster Single Feed

-F6AN-DV with PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH



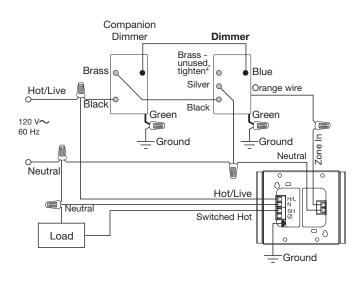
#### Single Location Installation with Power Booster Dual Feed

-F6AN-DV with PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH



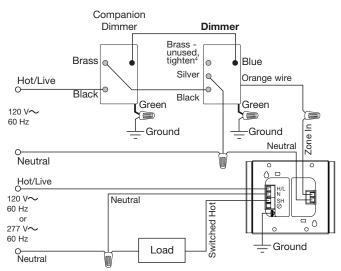
## Multi-Location Installation with Power Booster<sup>2,3</sup> Single Feed

-F6AN-DV with MA-R/MSC-AD and PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH



# Multi-Location Installation with Power Booster<sup>2,3</sup> Dual Feed

-F6AN-DV with MA-R/MSC-AD and PHPM-3F-DV-WH, PHPM-PA-DV-WH, or PHPM-WBX-DV-WH



<sup>&</sup>lt;sup>1</sup>When using controls in single location installations, tighten the blue terminal. DO NOT connect the blue terminal to any other wiring or to ground.

#### **ELUTRON.** SPECIFICATION SUBMITTAL

Job Name:	Model Numbers:
Job Number:	

<sup>&</sup>lt;sup>2</sup>Up to 9 Maestro Companion Dimmers may be connected to the Maestro Wireless Dimmer. Total blue terminal wire length may be up to 250 ft (76 m).

<sup>&</sup>lt;sup>3</sup> Neutral wire Dimmers must be connected on the Load side of a multi-location installation.

<sup>&</sup>lt;sup>4</sup>When using a PHPM, tighten the brass (Sw Hot) terminal. DO NOT connect the brass terminal to any other wiring or to ground.