Tech Lighting Architectural - Dimmer Compatibility Chart

Applicable for VERSE SERIES

Test Methodology/Nomenclature:

% = light output at a given point vs. max light output when measured without a dimmer
Top = % light output at top of dimmer setting
Bottom = % light output at bottom of dimmer setting (stable, without experiencing flicker/shimmer)
Turn-on/Pop-on = % light output (initial) required for all lights to turn-on within 1 seconds
Drop-out = fixture turns off before reaching the bottom dimmer setting

F = Forward Phase (Leading Edge / Triac / Incandescent / Lutron C.L)
R = Reverse Phase (Trailing Edge / ELV)
W = Wireless Compatible

STANDARD 120V PHASE DIMMING (Forward/Reverse)

Compatible / Recommended

Manufacturer	Name	Tested Part Number	Type	Top	Bottom	Pop-On	Drop-Out	Notes
Lutron	Sunnata	STCL-153	F	90.4 %	0.1 %			
Lutron	RadioRa 2	RRD-H6BRL	F	87.9 %	0.6 %			
Lutron	RadioRa 2	RRD-6NA	R	92.6 %	0.6 %			
Lutron	RadioRa 2	RRD-10ND	F	92.6 %	1.0 %			
Lutron	Caseta	PD-6WCL	F	89.0 %	3.1 %			
Lutron	Caseta ELV+	PD-5NE	R	80.4 %	0.9 %			
Lutron	Maestro	MRF2S-6CL	F	90.8 %	3.4 %			
Lutron	Maestro	MA-PRO	R	92.8 %	1.6 %			
Lutron	Maestro	MACL-153M	F	88.0 %	3.0 %			
Lutron	Diva Reverse Phase	DVRP-253P	R	88.0 %	1.8 %			
Lutron	Diva	DVCL-153P	F	92.3 %	4.1 %			
Leviton		TSL06	F	93.8 %	19.1 %			
Leviton	Decora Smart	DW1DK-1BZ	F	93.2 %	4.1 %			
Leviton	SureSlide	SSL7A	F	93.9 %	7.9 %			
Leviton	Decora	DSE06-1	R	98.3 %	1.4 %			
Leviton	Decora	6672	F	96.4 %	7.7 %			
Legrand	Radiant	RHL743P	F	93.4 %	4.2 %			
Legrand	Adorne SofTap	ADTP600RMHW1	F	85.2 %	0.8 %			
Legrand	Adorne	ADTH700RMTUW	F	84.8 %	0.1 %			
Insteon		2477D	R	95.9 %	0.6 %			
Forbes & Lomax		FLR603P 2nd Gen Z0KP100.24US	F	86.6 %	4.7 %			
Eaton		TAL06P2	F	97.3 %	7.8 %			
Control4		FPD120	F	98.2 %	0.2 %			
Control4		APD120	F	99.1 %	0.1 %			

Notes:

Performance Variation	1) Results may vary for a number of reasons including the following: - job site line voltage fluctation - fixture to dimmer distance - number of fixtures per dimmer, i.e. dimmer load - dimmer tolerances - driver/COB manufacturing tolerances
Tested Conditions	2) Test results reflect: 150W load, dimmers trimmed to their lowest level. Crestron and Control4 tested with 75W load.
Unlisted Dimmers	3) For additional compatibility, please submit specific request to factory
Trim Settings	4) Most modern dimmers and control systems allow bottom and top end levels to be trimmed, limiting the usable dim range in order to suit the lighting designer or end user's preferences. See Image 1. 5) Adjustment of the trim settings may be preferred for a number or reasons, including: - limiting the brightness of the fixture at full-on - reducing "popcorn" affect if multiple fixtures come on at different times - reducing "pop-on time" if there is an undesirable delay at turn-on from the off-state - eliminating "pop-on" if the fixture does not turn on at the lowest dimmer setting - eliminating "drop-out" if the fixture turns off prior to reaching the lowest dimmer setting - eliminating low-end flicker or shimmer or buzzing, if present
Programming	6) Modern control systems (Homeworks, RadioRa, Control 4, etc.) can be programmed in a number of ways including to turn on at a higher level then immediately dim lower after a short/settable time interval. For example, to reduce pop-on time, popcorning effect, or low-end flicker/shimmer, the control system can be programmed to turn-on at 5% then dim down to 0.8% after 0.5 seconds, thus allowing the full dimming range to be available once the fixture is in the on-state. See Image 2.
Digital System Input vs. Actual Light Output	7) Modern control systems (Homeworks, RadioRa, Control 4, etc.) can be programmed to adjust light levels. However, there is non-linear correlation between the light level selection values and the actual light output of the fixture. For example, a program setting of "50%" on the control system may correlate to 17% actual light output, a program setting of "20%" may correlate to 2% actual light output. See Image 3.
Slider Position vs. Actual Light Output	8) Like modern control systems, slider dimmers have a non-linear correlation between the slider position and the actual light output of the fixture. For example, a slider position of ~75% on the dimmer may correlate to 40% actual light output and a slider position of ~25% on the dimmer may correlate to 4% actual light output. See Image 3.
Eye Perception vs. Actual Light Output	9) The human eye responds to low light levels by enlarging the pupil, allowing more light to enter the eye. This response results in a difference between measured (actual) and perceived light levels. The dilation of the pupil allows more light to enter the eye so that a fixture dimmed to 10% of its maximum measured light output is perceived as being dimmed to only 32%. Likewise, a fixture dimmed to 1% is perceived to be at 10%. See Image 3.

Image 1

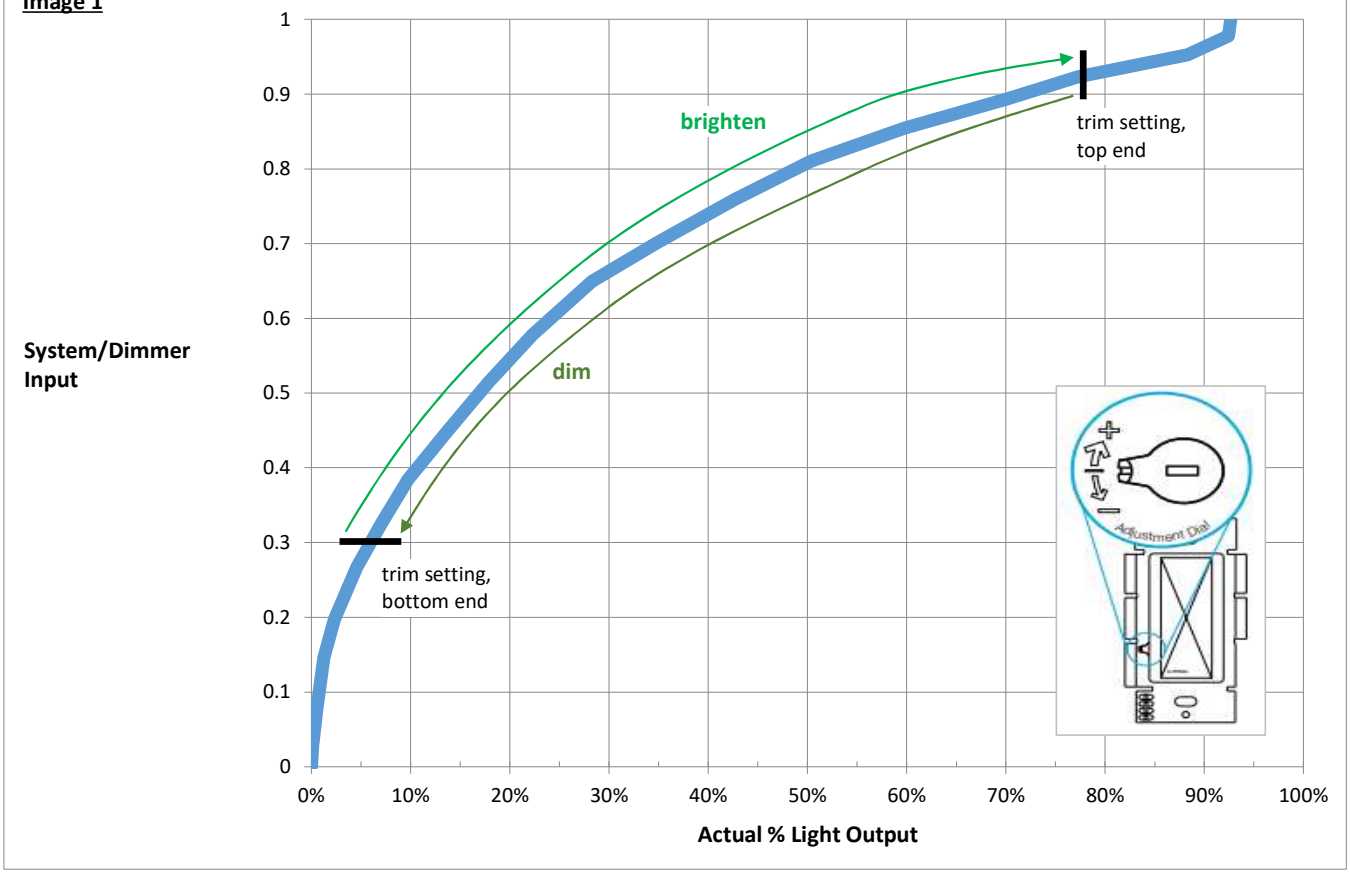
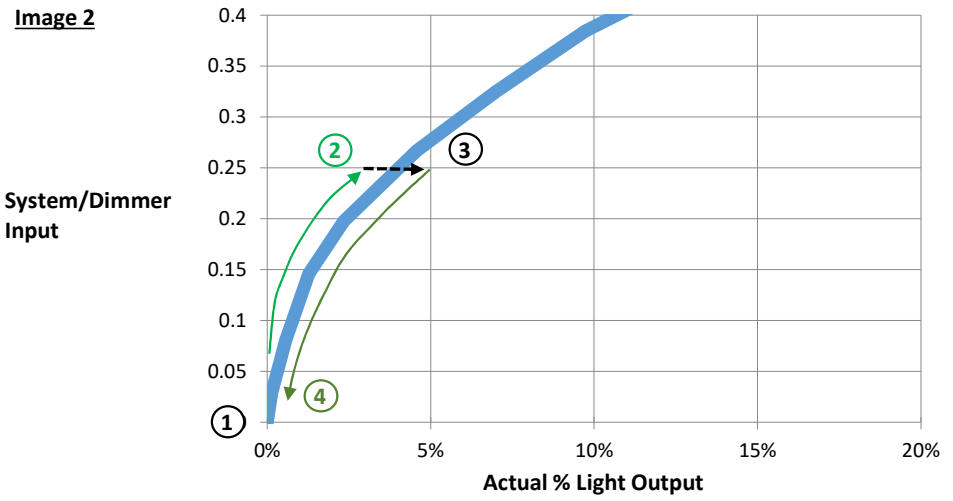

System/Dimmer Input
1
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0
brighten
dim
trim setting, top end
trim setting, bottom end
Adjustment Dial
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
Actual % Light Output

Image 2



1 off-state

2 on, starting at 5%

3 split second time delay

4 dim to lower level
(via program or slider)

Image 3