ERP POWER

Dimming Compatibility Matrix with 120 Vac TRIAC and ELV Dimmers

ESM050W-1050-42-Z1	Total Score:	92.2%	Driver Current (mA) with no Dimmer:	1065	Driver Light (FC) with no Dimmer:	2400	Scoring 0 - Needs improvement 1 - Unlikely to be noticed 2 - No issues
	Avg. Min. Dimming:	7.3%					

Dimmer List		Indiv. Score	Light Output (Foot Candle)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	Flicker[5]	Shimmer[6]	Able to turn off[7]	Audible Noise[8]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%					
Lutron	S-603PG	100.0%	2340	130	992	47	98%	5%	2	7.0%	2	2	2	2	2
Leviton	IPI06-1LZ	91.7%	2400	0	1065	0	100%	0%	2	0.0%	2	2	1	2	2
Leviton	6631-2	91.7%	2400	0	1065	0	100%	3%	2	0.0%	2	2	1	2	2
Lutron	DVCL-153P	83.3%	2400	80	1065	30	100%	3%	2	0.0%	2	2	0	2	2
Lutron	DV600P	83.3%	2400	170	1065	61	100%	7%	2	0.0%	2	2	0	2	2
Lutron	TGCL-153P	100.0%	2400	150	1065	56	100%	6%	2	0.0%	2	2	2	2	2
Lutron	S600P	100.0%	2400	60	1065	25	100%	3%	2	0.0%	2	2	2	2	2
Leviton	VPE06	95.8%	2400	280	1065	99	100%	12%	2	0.0%	2	2	2	2	2
Lutron	DVELV303P	100.0%	2400	210	1065	73	100%	9%	2	0.0%	2	2	2	2	2
Lutron	SELV300P	100.0%	2400	220	1065	77	100%	9%	2	0.0%	2	2	2	2	2
Leviton	6683-IW	83.3%	2400	0	1065	0	100%	0%	2	0.0%	2	2	0	2	2
Leviton	6161	91.7%	2400	460	1065	165	100%	19%	2	0.0%	2	2	2	2	2
Leviton	6633-P	91.7%	2400	40	1065	18	100%	2%	2	0.0%	2	2	1	2	2
Lutron	TG-600P	75.0%	2400	390	1065	141	100%	16%	2	0.0%	2	2	0	2	2
Cooper	DLC03P	83.3%	2400	60	1065	23	100%	3%	2	0.0%	2	2	0	2	2
Lutron	LG600P	91.7%	2400	170	1065	60	100%	7%	2	0.0%	2	2	1	2	2
Lutron	CT103P	87.5%	2400	270	1065	96	100%	11%	2	0.0%	2	2	1	2	2
Cooper	SLC03P	91.7%	2400	30	1065	12	100%	1%	2	0.0%	2	2	1	2	2
Leviton	IPE04	100.0%	2400	180	1065	65	100%	8%	2	0.0%	2	2	2	2	2
Lutron	MAELV600	95.8%	2400	340	1065	120	100%	14%	2	0.0%	2	2	2	2	2
Lutron	FAELV500	95.8%	2400	340	1065	119	100%	14%	2	0.0%	2	2	2	2	2
Lightolier	ZP260QEW	95.8%	2400	330	1065	115	100%	14%	2	0.0%	2	2	2	2	2
Cooper	DAL06P	91.7%	2400	10	1065	8	100%	0%	2	0.0%	2	2	1	2	2

NOTES:

1. If light is measured, then the dimming range is based on light output. If light is not measured, then the dimming range is based on the percentage of output current.
2. While adjusting the dimming level, a smooth dimming, with no sudden jumps in light output, results in a score of 2. A small jump that is only noticeable if directly staring at the light results in a score of 1.
   A large obvious jump results in a score of 0.
3. Percentage away from 100% output current when dimmer is inserted in the circuit, at the dimmer's maximum conduction angle.
4. No flash at startup (at maximum conduction angle) results in a score of 2. A smooth, but still noticeable transition from overshoot results in a score of 1. A transition with overshoot and undershoot results in a score of 0.
5. Highly visible repeating light fluctuations. No flicker results in a score of 2. Flicker results in a score of 0. There is no "1" score.
   Flicker is measured using a stable AC source delivered by a power supply. AC line voltage instability will cause visible light fluctuations.
6. Low frequency or random variations in light output that are typically less noticeable than flicker (the light output does not turn off at any point).
   No shimmer, perfect light output, results in a score of 2. Only noticeable shimmer, if staring directly at the LEDs, results in a score of 1. Obvious shimmer, even if looking away from the LEDs, results in a score of 0.
   Like Flicker, Shimmer is measured using a stable AC source delivered by a power supply. AC line voltage instability will cause visible light fluctuations.
7. No light output when dimmer switch or button is turned off.
8. Audible noise with driver located at 3 feet and measured at 90 degree conduction angle (worst case). A strongly apparent noise resuts in a score of 0.
   A score of 1 is assigned if the noise is not very obvious, and most likely to not be noticed inside of a fixture.
9. All the dimmers are set to the widest dimming range, when the trim potentiometer is available. Testing is done with 1 dimmer per LED driver.