ERP POWER

Dimming Compatibility Matrix with 120 Vac TRIAC, ELV and 0-10 V Dimmers

ESM030W-0700-42		Total Score:	91.3%		Driver Current (mA) with no Dimmer:		695	Driver Light (FC) with no Dimmer:		1480		Scoring			
		Avg. Min. Dimming:	6.9%									0 - Needs improvement			
												1 - Unlikely to be noticed			
												2 - No issues			
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	91.7%	1400	90	641	33	95%	6%	2	8.0%	2	2	2	2	1
Leviton	IPI06-1LZ	91.7%	1480	0	695	0	100%	0%	2	0.0%	2	2	2	2	1
Leviton	6631-2	91.7%	1480	0	695	0	100%	2%	2	0.0%	2	2	2	2	1
Lutron	DVCL-153P	91.7%	1480	40	695	16	100%	3%	2	0.0%	2	2	2	2	1
Lutron	DV600P	91.7%	1480	110	695	42	100%	7%	2	0.0%	2	2	2	2	1
Lutron	TGCL-153P	91.7%	1480	100	695	38	100%	7%	2	0.0%	2	2	2	2	1
Lutron	S600P	91.7%	1480	50	695	18	100%	3%	2	0.0%	2	2	2	2	1
Leviton	VPE06	95.8%	1480	170	695	63	100%	11%	2	0.0%	2	2	2	2	2
Lutron	DVELV303P	100.0%	1480	120	695	45	100%	8%	2	0.0%	2	2	2	2	2
Lutron	SELV300P	100.0%	1480	130	695	18	100%	9%	2	0.0%	2	2	2	2	2
Leviton	6683-IW	91.7%	1480	0	695	0	100%	0%	2	0.0%	2	2	2	2	1
Leviton	6161	83.3%	1480	270	695	99	100%	18%	2	0.0%	2	2	2	2	1
Leviton	6633-P	91.7%	1480	30	695	14	100%	2%	2	0.0%	2	2	2	2	1
Lutron	TG-600P	83.3%	1480	230	695	85	100%	16%	2	0.0%	2	2	2	2	1
Cooper	DLC03P	83.3%	1480	30	695	16	100%	2%	1	0.0%	2	2	2	2	1
Lutron	LG600P	91.7%	1480	110	695	41	100%	7%	2	0.0%	2	2	2	2	1
Lutron	CT103P	87.5%	1480	170	695	63	100%	11%	2	0.0%	2	2	2	2	1
Cooper	SLC03P	83.3%	1480	10	695	7	100%	1%	1	0.0%	2	2	2	2	1
Leviton	IPE04	91.7%	1480	110	695	41	100%	7%	1	0.0%	2	2	2	2	2
Lutron	MAELV600	95.8%	1480	210	695	76	100%	14%	2	0.0%	2	2	2	2	2
Lutron	FAELV500	95.8%	1480	210	695	75	100%	14%	2	0.0%	2	2	2	2	2
Lightolier	ZP260QEW	100.0%	1480	130	695	48	100%	9%	2	0.0%	2	2	2	2	2
Cooper	DAL06P	83.3%	1480	0	695	0	100%	0%	1	0.0%	2	2	2	2	1

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.