ERP POWER

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

ESM040W-0800-42		Total Score:	98.4%		Driver Current (mA) with no Dimmer:		789	Driver Light (FC) with no Dimmer:		1820	Scoring			
		Avg. Min. Dimming:	8.9%								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	100.0%	1740	138	742	44	96%	8%	2	6.0%	2	2	2	2	2
Leviton	IPI06-1LZ	100.0%	1813	36	789	12	100%	2%	2	0.0%	2	2	2	2	2
Leviton	6631-2	100.0%	1813	9	789	4	100%	0%	2	0.0%	2	2	2	2	2
Lutron	DVCL-153P	100.0%	1815	58	788	19	100%	3%	2	0.0%	2	2	2	2	2
Lutron	DV600P	100.0%	1815	180	789	58	100%	10%	2	0.0%	2	2	2	2	2
Lutron	TGCL-153P	100.0%	1817	161	789	51	100%	9%	2	0.0%	2	2	2	2	2
Lutron	S600P	100.0%	1817	91	789	29	100%	5%	2	0.0%	2	2	2	2	2
Leviton	VPE06	95.8%	1820	227	789	72	100%	12%	2	0.0%	2	2	2	2	2
Lutron	DVELV303P	100.0%	1819	168	789	54	100%	9%	2	0.0%	2	2	2	2	2
Lutron	SELV300P	100.0%	1820	176	789	56	100%	10%	2	0.0%	2	2	2	2	2
Leviton	6683-IW	100.0%	1820	179	789	56	100%	10%	2	0.0%	2	2	2	2	2
Leviton	6161	91.7%	1820	363	789	115	100%	20%	2	0.0%	2	2	2	2	2
Leviton	6633-P	100.0%	1820	74	789	24	100%	4%	2	0.0%	2	2	2	2	2
Lutron	TG-600P	91.7%	1820	351	789	111	100%	19%	2	0.0%	2	2	2	2	2
Cooper	DLC03P	100.0%	1820	70	789	23	100%	4%	2	0.0%	2	2	2	2	2
Lutron	LG600P	100.0%	1811	176	789	55	100%	10%	2	0.0%	2	2	2	2	2
Lutron	CT103P	95.8%	1811	260	789	82	100%	14%	2	0.0%	2	2	2	2	2
Cooper	SLC03P	100.0%	1812	29	789	11	100%	2%	2	0.0%	2	2	2	2	2
Leviton	IPE04	100.0%	1811	151	789	48	100%	8%	2	0.0%	2	2	2	2	2
Lutron	MAELV600	91.7%	1813	283	789	89	100%	16%	2	0.0%	2	2	2	2	2
Lutron	FAELV500	95.8%	1810	281	789	89	100%	15%	2	0.0%	2	2	2	2	2
Lightolier	ZP260QEW	100.0%	1808	174	789	55	99%	10%	2	0.0%	2	2	2	2	2
Cooper	DAL06P	100.0%	1812	49	789	16	100%	3%	2	0.0%	2	2	2	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.