ERP POWER

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

ESM030W-0550-42		Total Score:	98.0%		Driver Current (mA) with no Dimmer:	550	Driver Light (FC) with no Dimmer:	1235		Scoring: 0 - Needs improvement; 1 - Unlikely to be noticed; 2 - No issues				
		Avg. Min. Dimming:	8.7%											
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%	1220	89	550	29	99%	7%	2	0.0%	2	2	2	2	2
Leviton	IPI06-1LZ	100.0%	1223	29	550	10	99%	2%	2	0.0%	2	2	2	2	2
Leviton	6631-2	100.0%	1224	10	550	4	99%	1%	2	0.0%	2	2	2	2	2
Lutron	DVCL-153P	100.0%	1221	34	550	12	99%	3%	2	0.0%	2	2	2	2	2
Lutron	DV600P	100.0%	1222	110	550	36	99%	9%	2	0.0%	2	2	2	2	2
Lutron	TGCL-153P	100.0%	1221	100	550	33	99%	8%	2	0.0%	2	2	2	2	2
Lutron	S600P	100.0%	1221	50	550	17	99%	4%	2	0.0%	2	2	2	2	2
Leviton	VPE06	95.8%	1221	163	550	54	99%	13%	2	0.0%	2	2	2	2	2
Lutron	DVELV303P	100.0%	1221	116	550	38	99%	9%	2	0.0%	2	2	2	2	2
Lutron	SELV300P	95.8%	1219	130	550	43	99%	11%	2	0.0%	2	2	2	2	2
Leviton	6683-IW	100.0%	1218	106	550	35	99%	9%	2	0.0%	2	2	2	2	2
Leviton	6161	91.7%	1218	249	550	84	99%	20%	2	0.0%	2	2	2	2	2
Leviton	6633-P	100.0%	1218	34	550	12	99%	3%	2	0.0%	2	2	2	2	2
Lutron	TG-600P	91.7%	1218	250	550	86	99%	20%	2	0.0%	2	2	2	2	2
Cooper	DLC03P	100.0%	1218	37	550	13	99%	3%	2	0.0%	2	2	2	2	2
Lutron	LG600P	100.0%	1219	112	550	37	99%	9%	2	0.0%	2	2	2	2	2
Lutron	CT103P	95.8%	1218	171	550	57	99%	14%	2	0.0%	2	2	2	2	2
Cooper	SLC03P	100.0%	1218	12	550	5	99%	1%	2	0.0%	2	2	2	2	2
Leviton	IPE04	100.0%	1218	109	550	36	99%	9%	2	0.0%	2	2	2	2	2
Lutron	MAELV600	91.7%	1218	198	550	66	99%	16%	2	0.0%	2	2	2	2	2
Lutron	FAELV500	91.7%	1218	199	550	67	99%	16%	2	0.0%	2	2	2	2	2
Lightolier	ZP260QEW	100.0%	1217	122	550	40	99%	10%	2	0.0%	2	2	2	2	2
Cooper	DAL06P	100.0%	1218	19	550	7	99%	2%	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.