ERP POWER

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

ESM060W-1400-42		Total Score:	97.1%		Driver Current (mA) with no Dimmer:		1390	Driver Light (FC) with no Dimmer:		2960		Scoring: 0 - Needs improvement; 1 - Unlikely to be noticed; 2 - No issues			
		Avg. Min. Dimming:	7.1%												
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%	2630	160	1198	62	89%	5%	2	14.0%	2	2	2	2	2
Leviton	IPI06-1LZ	91.7%	2940	30	1390	15	99%	1%	1	0.0%	2	2	2	2	2
Leviton	6631-2	100.0%	2940	8	1390	4	99%	0%	2	0.0%	2	2	2	2	2
Lutron	DVCL-153P	100.0%	2940	90	1390	36	99%	3%	2	0.0%	2	2	2	2	2
Lutron	DV600P	100.0%	2930	190	1390	70	99%	6%	2	0.0%	2	2	2	2	2
Lutron	TGCL-153P	100.0%	2930	200	1390	75	99%	7%	2	0.0%	2	2	2	2	2
Lutron	S600P	100.0%	2930	80	1390	34	99%	3%	2	0.0%	2	2	2	2	2
Leviton	VPE06	95.8%	2930	350	1390	128	99%	12%	2	0.0%	2	2	2	2	2
Lutron	DVELV303P	100.0%	2910	260	1390	98	98%	9%	2	0.0%	2	2	2	2	2
Lutron	SELV300P	100.0%	2900	270	1390	101	98%	9%	2	0.0%	2	2	2	2	2
Leviton	6683-IW	100.0%	2910	190	1390	72	98%	6%	2	0.0%	2	2	2	2	2
Leviton	6161	91.7%	2920	530	1390	199	99%	18%	2	0.0%	2	2	2	2	2
Leviton	6633-P	100.0%	2910	60	1390	27	98%	2%	2	0.0%	2	2	2	2	2
Lutron	TG-600P	95.8%	2910	410	1390	153	98%	14%	2	0.0%	2	2	2	2	2
Cooper	DLC03P	91.7%	2900	90	1390	37	98%	3%	1	0.0%	2	2	2	2	2
Lutron	LG600P	100.0%	2910	190	1390	73	98%	6%	2	0.0%	2	2	2	2	2
Lutron	CT103P	100.0%	2910	310	1390	120	98%	10%	2	0.0%	2	2	2	2	2
Cooper	SLC03P	91.7%	2890	40	1390	20	98%	1%	1	0.0%	2	2	2	2	2
Leviton	IPE04	91.7%	2870	240	1390	88	97%	8%	1	0.0%	2	2	2	2	2
Lutron	MAELV600	95.8%	2870	430	1390	159	97%	15%	2	0.0%	2	2	2	2	2
Lutron	FAELV500	95.8%	2900	420	1390	156	98%	14%	2	0.0%	2	2	2	2	2
Lightolier	ZP260QEW	100.0%	2870	280	1390	105	97%	9%	2	0.0%	2	2	2	2	2
Cooper	DAL06P	91.7%	2900	10	1390	6	98%	0%	1	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.