ERP POWER

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

ESM050W-1050-42		Total Score:	97.5%		Driver Current (mA) with no Dimmer:		1047	Driver Light (FC) with no Dimmer:		1750		Scoring			
		Avg. Min. Dimming:	7.0%									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%	1690	180	990	95	97%	10%	2	5.0%	2	2	2	2	2
Leviton	IPI06-1LZ	95.8%	1750	20	1047	13	100%	1%	2	0.0%	1	2	2	2	2
Leviton	6631-2	95.8%	1750	10	1047	11	100%	1%	2	0.0%	1	2	2	2	2
Lutron	DVCL-153P	100.0%	1750	40	1047	24	100%	2%	2	0.0%	2	2	2	2	2
Lutron	DV600P	100.0%	1750	50	1047	31	100%	3%	2	0.0%	2	2	2	2	2
Lutron	MAW600	0.0%													
Lutron	TGCL-153P	100.0%	1750	40	1047	24	100%	2%	2	0.0%	2	2	2	2	2
Lutron	S600P	95.8%	1750	160	1047	80	100%	9%	2	0.0%	1	2	2	2	2
Leviton	VPE06	100.0%	1750	170	1047	86	100%	10%	2	0.0%	2	2	2	2	2
Lutron	DVELV303P	100.0%	1750	150	1047	76	100%	9%	2	0.0%	2	2	2	2	2
Lutron	SELV300P	100.0%	1750	160	1047	81	100%	9%	2	0.0%	2	2	2	2	2
Leviton	6673-10W	0.0%													
Leviton	6683-IW	95.8%	1750	40	1047	25	100%	2%	2	0.0%	1	2	2	2	2
Leviton	VP106	0.0%													
Leviton	6161	91.7%	1750	340	1047	168	100%	19%	2	0.0%	2	2	2	2	2
Leviton	6633-P	95.8%	1750	130	1047	70	100%	7%	2	0.0%	1	2	2	2	2
Lutron	TG-600P	100.0%	1750	180	1047	94	100%	10%	2	0.0%	2	2	2	2	2
Cooper	DLC03P	95.8%	1750	30	1047	18	100%	2%	2	0.0%	1	2	2	2	2
Lutron	LG600P	95.8%	1750	90	1047	50	100%	5%	2	0.0%	1	2	2	2	2
Lutron	CT103P	95.8%	1750	220	1047	110	100%	13%	2	0.0%	2	2	2	2	2
Lutron	DV603P	0.0%													
Cooper	SLC03P	100.0%	1750	20	1047	17	100%	1%	2	0.0%	2	2	2	2	2
Leviton	IPE04	95.8%	1750	270	1047	137	100%	15%	2	0.0%	2	2	2	2	2
Lutron	MAELV600	100.0%	1750	50	1047	30	100%	3%	2	0.0%	2	2	2	2	2
Lutron	FAELV500	95.8%	1750	240	1047	117	100%	14%	2	0.0%	2	2	2	2	2
Lightolier	ZP260QEW	100.0%	1750	80	1047	470	100%	5%	2	0.0%	2	2	2	2	2
Cooper	DAL06P	91.7%	1750	200	1047	98	100%	11%	2	0.0%	1	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.