Dimming Compatibility Matrix with 0-10V Dimmers at 120 VAC

PLH-A30W-10-55-SXZ Iout 1050mA Vout 12.5V		Total Score:	100.0%		Driver Current (mA) With No Dimmer:		1041	Driver Light Output (FC) With No Dimmer:		800	Scoring 0 - Needs Improvement 1 - Unlikely to Be Noticed 2 - No Issues					
		Avg. Min. Dimming:	1.0%													
Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	800	8	1041.0	10.4	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	800	8	1041.0	10.4	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	800	8	1041.0	10.4	100%	1%	2	0.0%	2	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. Low End Start
6. 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.
7 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.
8. No light output when dimmer switch or button is turned off.
9. 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.
10. 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.

Dimming Compatibility Matrix with 0-10V Dimmers at 277 VAC

PLH-A30W-10-55-SXZ Iout 1050mA Vout 12.5V		Total Score:	100.0%		Driver Current (mA) With No Dimmer:		1043	Driver Light Output (FC) With No Dimmer:		800	Scoring 0 - Needs Improvement 1 - Unlikely to Be Noticed 2 - No Issues					
		Avg. Min. Dimming:	1.0%													
Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	800	8	1043.0	10.5	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	800	8	1043.0	10.5	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	800	8	1043.0	10.5	100%	1%	2	0.0%	2	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. Low End Start
6. 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.
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   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.
8. No light output when dimmer switch or button is turned off.
9. 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.
10. 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.

Dimming Compatibility Matrix with 0-10V Dimmers at 120 VAC

PLH-A30W-10-55-SXZ Iout 1050mA Vout 24.2V	Total Score:	100.0%	Driver Current (mA) With No Dimmer:	1050	Driver Light Output (FC) With No Dimmer:	1100	Scoring 0 - Needs Improvement 1 - Unlikely to Be Noticed 2 - No Issues
	Avg. Min. Dimming:	1.0%					

Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	1100	11	1050.0	10.6	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	1100	11	1050.0	10.6	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	1100	11	1050.0	10.6	100%	1%	2	0.0%	2	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. Low End Start
6. 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.
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   Like Flicker, Shimmer is measured using a stable AC source delivered by a power supply. AC line voltage instability will cause visible light fluctuations.
8. No light output when dimmer switch or button is turned off.
9. 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.
10. 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.

Dimming Compatibility Matrix with 0-10V Dimmers at 277 VAC

PLH-A30W-10-55-SXZ Iout 1050mA Vout 24.2V		Total Score:	100.0%	Driver Current (mA) With No Dimmer:	1054	Driver Light Output (FC) With No Dimmer:	1100	Scoring 0 - Needs Improvement 1 - Unlikely to Be Noticed 2 - No Issues					
		Avg. Min. Dimming:	1.0%										
Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	1100	11	1048.0	10.6	100%	1%	2	1.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	1100	11	1048.0	10.6	100%	1%	2	1.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	1100	11	1048.0	10.6	100%	1%	2	1.0%	2	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. Low End Start
6. 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.
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   Like Flicker, Shimmer is measured using a stable AC source delivered by a power supply. AC line voltage instability will cause visible light fluctuations.
8. No light output when dimmer switch or button is turned off.
9. 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.
10. 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.

Dimming Compatibility Matrix with 0-10V Dimmers at 120 VAC

PLH-A30W-10-55-SXZ Iout 700mA Vout 34.6V		Total Score:	100.0%	Driver Current (mA) With No Dimmer:	700	Driver Light Output (FC) With No Dimmer:	1130	Scoring 0 - Needs Improvement 1 - Unlikely to Be Noticed 2 - No Issues					
		Avg. Min. Dimming:	1.0%										

Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	1130	12	700.0	7.7	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	1130	12	700.0	7.7	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	1130	12	700.0	7.7	100%	1%	2	0.0%	2	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. Low End Start
6. 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.
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8. No light output when dimmer switch or button is turned off.
9. 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.
10. 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.

Dimming Compatibility Matrix with 0-10V Dimmers at 277 VAC

PLH-A30W-10-55-SXZ Iout 700mA Vout 34.6V		Total Score:	100.0%		Driver Current (mA) With No Dimmer:		700	Driver Light Output (FC) With No Dimmer:		1130	Scoring 0 - Needs Improvement 1 - Unlikely to Be Noticed 2 - No Issues					
		Avg. Min. Dimming:	1.0%													
Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	1130	12	700.0	7.7	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	1130	12	700.0	7.7	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	1130	12	700.0	7.7	100%	1%	2	0.0%	2	2	2	2	2	2

NOTES:

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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.
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9. 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.
10. 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.

Dimming Compatibility Matrix with 0-10V Dimmers at 120 VAC

PLH-A30W-10-55-SXZ Iout 275mA Vout 43.4V		Total Score:	100.0%		Driver Current (mA) With No Dimmer:	273	Driver Light Output (FC) With No Dimmer:	780	Scoring 0 - Needs Improvement 1 - Unlikely to Be Noticed 2 - No Issues					
		Avg. Min. Dimming:	1.0%											
Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	780	8	273.0	2.8	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	780	8	273.0	2.8	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	780	8	273.0	2.8	100%	1%	2	0.0%	2	2	2	2	2	2

NOTES:

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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. Low End Start
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		Avg. Min. Dimming:	1.0%											
Dimmer List		Indiv. Score	Light Output (Foot Candles)		Current (mA)		Dimming Range[1]		Smooth Dimming[2]	Sag[3]	No Start Flash[4]	LE Start <1 s [5]	Flicker[6]	Shimmer[7]	Able to turn off[8]	Audible Noise[9]
Mfg.	Model	%	Max	Min	Max	Min	Max	Min		%						
Lutron	Nova NFTV	100.0%	780	8	274.0	2.8	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	Diva DVTV	100.0%	780	8	274.0	2.8	100%	1%	2	0.0%	2	2	2	2	2	2
Leviton	IP710-DL	100.0%	780	8	274.0	2.8	100%	1%	2	0.0%	2	2	2	2	2	2

NOTES:

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