

The HL6 ALLSLOPE LED Series provides continuous dimming to 5% nominal with reverse or forward phase cut dimmers.

Housings	Light Engines	Trims		
HL612ICAT	HLM6927	455SC	456W	71P
HL618TAT	HLM6930	455H	456P	71PS
HL618TCP	HLM6935	455SN	70P	73P
	HLM6940	455TBZ	70PS	73PS
			70SNS	ERT702

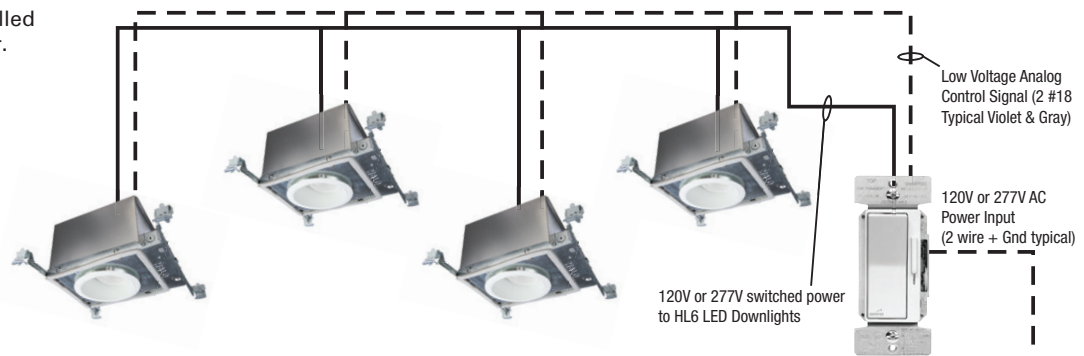
Phase Control 120V Dimming

HL6 luminaires installed with a 120V dimmer.



0-10V Control Dimming

HL6 luminaires installed with a 0-10V dimmer.



Eaton's AL Series dimmers offer versatile options to set the mood and reduce energy consumption.

Visit www.cooperwiringdevices.com/ALSeries for more information.



***Note:** The Rapid Start feature is used to ensure the right amount of power boost during start-up. When a dimmer with Rapid Start is turned on from a low dimmer setting, the LED lighting may exhibit a momentary flash. Select dimmer models offer an adjustment of the Rapid Start feature. The user may wish to adjust this setting to reduce the boost and resulting momentary flash. If this capability is desired, the user should select dimmer models designated as "fully adjustable" or "selectable ON or OFF".

Dimmer Features	ACCELL (AAL06)	DEVINE (DAL06P)	SKYE (SAL06P)	TRACE (TAL06P)
Rapid Start feature*	Selectable ON or OFF	Fully adjustable	Fixed ON	Fully adjustable
Adjustable high-end trim	•			
Adjustable low-end trim	•	•	•	•
Wiring configurations	Single-pole or multi-location	Single-pole or three-way	Single-pole or three-way	Single-pole or three-way
Color change kits	•	•		•

HL612ICAT Series - Phase Control 120V Dimmers

LED Rated Dimmers

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 277V	Peak Repetitive Current (A)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Lutron	Diva	DVCL-153P	INC/HAL/CFL/LED	1	7	0	12	98%	5%	≤1 sec
Lutron	Maestro	MACL-153-M	INC/HAL/CFL/LED	1	7	0	12	94%	5%	≤1 sec
CWD	Devine	TAL06P	INC/HAL/MLV/ELV/CFL/LED	1	15	0	12	99%	4%	≤1 sec
CWD	Toggle	DAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	15	0	12.5	99%	1%	≤1 sec
CWD	Skye	SAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	15	0	13	99%	3%	≤1 sec
CWD	Skye	SLC06P	INC/HAL/CFL/LED	1	15	0	11.5	99%	5%	>1 sec ¹
CWD	Smart	AAL06	INC/HAL/FLR/MLV/ELV/CFL/LED	1	15	0	14.5	97%	1%	≤1 sec
Leviton	SureSlide	6674	(INC/LED/CFL)	1	7	0	9.5	97%	5%	≤1 sec
Leviton	Illumatech	IPL06	(INC/LED/CFL)	1	7	0	9	94%	5%	>1 sec ¹
Lutron	Toggler	TGCL-153P	INC/HAL/CFL/LED	1	6	0	11	98%	5%	>1 sec ¹
Lutron	Skylark	SCL-153P-WH	INC/HAL/CFL/LED	1	7	0	12	98%	5%	≤1 sec
CWD	Devine	DLC06P	INC/HAL/CFL/LED	1	15	0	11.5	99%	1%	>1 sec ¹
Lutron	LCP128	LP-RPM-4U-120	Control Panel	1	20	0	5.2	99%	5%	≤1 sec
Lutron	LCP128	LP-RPM-4A-120	Control Panel	1	20	0	--	95%	1%	≤1 sec
CC	iLumen	SC120-06-UN	Control Panel	1	30	0	--	100%	3%	≤1 sec

1. Does not start from low end 1% point

Dimmer Rating - Load Type

INC = Incandescent

HAL = Halogen

MLV = Magnetic Low Voltage

ELV = Electric Low Voltage

CFL = Compact Fluorescent

FLR = Fluorescent

Dimmer Make

CWD = Eaton's Cooper Wiring Devices Business

CC = Eaton's Cooper Controls Business

HL612ICAT Series - Phase Control 120V Dimmers

For Reference Only - Incandescent and Electronic Low Voltage Rated Dimmers

Testing conducted by Cooper Lighting is not a substitute for and does not imply certification by an independent laboratory or any other standards certification. Refer to manufacturer specifications for more detailed information on product certifications and standards. Refer to this dimming guide notes section. Consult the dimmer manufacturer prior to installation to ensure compatibility.

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 277V	Peak Repetitive Current (A)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Lutron	Toggler	TG-600P	INC	1	25	0	9	97%	6%	>1 sec ²
Lutron	Nova T	NTFTU-5A	FLR	1	8	0	3.2	98%	19%	≤1 sec
Lutron	Diva	DV600P	INC	1	25	0	7	99%	5%	>1 sec ³
Lutron	Maestro	MAW600	INC/HAL	1	25	0	8	98%	0%	≤1 sec
Lutron	Lumea	LG600P	INC/HAL	1	25	0	7	99%	2%	>1 sec ²
Lutron	Skylark	S600P	INC/HAL	1	25	0	7	98%	1%	>1 sec ²
Lutron	Skylark Contour	CT103P	INC/HAL/MLV	1	41	0	11	98%	5%	≤1 sec
Lutron	Diva	DV603P	INC/HAL	1	25	0	7	99%	3%	>1 sec ²
Lutron	Ariadni	AY-600P	INC/HAL	1	25	0	10	98%	5%	>1 sec ²
Lutron	Contour	CT103P	INC/HAL	1	41	0	11.5	98%	5%	>1 sec ²
Lutron	Contour	CT-600P	INC/HAL	1	25	0	6.5	98%	5%	>1 sec ¹
Lutron	Rotary	D-600P	INC/HAL	1	25	0	9	97%	5%	>1 sec ¹
Lutron	Diva	DV-600P	INC	1	25	0	7	97%	5%	>1 sec ¹
Lutron	Glyder	GL-600P	INC/HAL	1	25	0	7	98%	5%	>1 sec ²
Lutron	Lumia	LG-600PH	INC/HAL	1	25	0	7	98%	5%	>1 sec ¹
Lutron	Maestro	MA600	INC	1	25	0	8.5	98%	1%	>1 sec ²
Lutron	Nova	N-600	INC/HAL	1	25	0	3.8	99%	5%	>1 sec ¹
Lutron	Skylark	S-600P	INC/HAL	1	25	0	7	98%	5%	>1 sec ¹
Lutron	Centurion	C-600P	INC/HAL	1	25	0	3.3	98%	1%	>1 sec ²
Lutron	Ariadni	AYLV-600P	MLV	1	18	0	9	98%	6%	≤1 sec
Lutron	Glyder	GLV600	MLV	1	18	0	7.5	98%	2%	>1 sec ²
Lutron	Diva	DVLV-600P	MLV	1	18	0	7	98%	4%	≤1 sec
Lutron	Lumina	LG-103P	INC/HAL	1	41	0	12	98%	8%	≤1 sec
Lutron	Skylark	SLV-600P	MLV	1	18	0	7.5	98%	3%	>1 sec ²
Lutron	Nova	NTLV600	MLV	1	18	0	3.4	99%	4%	≤1 sec
Lutron	Nova	NT600	INC	1	25	0	3.4	99%	1%	>1 sec ²
CWD	Aspire	9530AW	INC	1	25	0	14	100%	2%	>1 sec ²
CWD	React	RI061	INC/HAL	1	25	0	15	99%	10%	>1 sec ⁴
CWD	Skye	SF8AP	FLR	1	13	0	8.5	99%	25%	≤1 sec
CWD	Toggle	TI061	INC/HAL	1	25	0	17	91%	5%	≤1 sec
Leviton	Plug In Lamp Dimmer	TBI03	INC	1	15	0	18	95%	5%	>1 sec ⁵
Leviton	Acenti	ATX10	FLR	1	41	0	8	99%	8%	≤1 sec
Leviton	Decora	6673	CFL/INC	1	12	0	8	98%	2%	≤1 sec
Leviton	SureSlide	6631-2	INC	1	25	0	8	98%	1%	>1 sec ²
Leviton	Illuminatech	RP106	INC	1	25	0	8	98%	7%	>1 sec ⁶
Leviton	Illuminatech	IPI06	INC	1	25	0	8	98%	5%	>1 sec ⁷
Leviton	Vizia	VP106	INC	1	25	0	8	98%	2%	≤1 sec
Leviton	Decora	6161	INC	1	20	0	9	98%	6%	≤1 sec
Leviton	SureSlide	6633-P	INC	1	25	0	8.5	98%	5%	>1 sec ¹
Leviton	Vizia	VPE06	ELV	1	25	0	--	100%	4%	≤1 sec
Leviton	Illuminatech	IPE04	ELV	1	12	0	--	100%	2%	≤1 sec
Leviton	Vizia	VZE04	ELV	1	16	0	--	99%	5%	≤1 sec
Lutron	Maestro	MAELV600	ELV	1	25	0	--	96%	6%	≤1 sec
Lutron	Faetra	FAELV500	ELV	1	20	0	--	96%	5%	≤1 sec
Lutron	Diva	DVELV303P	ELV	1	12	0	--	92%	3%	≤1 sec
Lutron	Skylark	SELV300P	ELV	1	12	0	--	95%	3%	>1 sec ²
Lightolier	Sunrise	ZP260QEW	ELV	1	10	0	--	93%	5%	≤1 sec
CWD	Devine	DE06P	ELV	1	25	0	--	93%	5%	>1 sec ²

- Does not start from low end 1% point
- Low end start time > 1Sec
- Does not start from low end at 2% point
- Not Dimming Smoothly. Low end Start Time > 1Sec. Shimmer present
- Does not start from low end up to 5% point. Not dimming smoothly
- Not Dimming Smoothly. Low end Start Time > 1Sec
- Does not start from low end 3% point.

Dimmer Make

CWD = Eaton's Cooper Wiring Devices Business
CC = Eaton's Cooper Controls Business

Dimmer Rating - Load Type

INC = Incandescent
HAL = Halogen
MLV = Magnetic Low Voltage
ELV = Electric Low Voltage
CFL = Compact Fluorescent
FLR = Fluorescent

HL618TAT & HL618TCP Series - Phase Control 120V Dimmers

LED Rated Dimmers

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 277V	Peak Repetitive Current (A)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Lutron	Diva	DVCL-153P	INC/HAL/CFL/LED	1	5	0	14	96%	5%	>1 sec ¹
Lutron	Maestro	MACL-153-M	INC/HAL/CFL/LED	1	5	0	13	95%	1%	>1 sec ²
CWD	Devine	TAL06P	INC/HAL/MLV/ELV/CFL/LED	1	10	0	16	99%	5%	≤1 sec
CWD	Toggle	DAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	10	0	15	99%	1%	≤1 sec
CWD	Skye	SAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	10	0	16	99%	5%	≤1 sec
CWD	Skye	SLC06P	INC/HAL/CFL/LED	1	10	0	13	98%	5%	>1 sec ²
CWD	Smart	AAL06	INC/HAL/FLR/MLV/ELV/CFL/LED	1	10	0	17	99%	2%	≤1 sec
Leviton	SureSlide	6674	(INC/LED/CFL)	1	5	0	11	99%	1%	≤1 sec
Leviton	Illumatech	IPL06	(INC/LED/CFL)	1	5	0	11	99%	2%	≤1 sec
Lutron	Toggler	TGCL-153P	INC/HAL/CFL/LED	1	4	0	13	98%	5%	>1 sec ³
Lutron	Skylark	SCL-153P-WH	INC/HAL/CFL/LED	1	5	0	15	98%	5%	>1 sec ²
CWD	Devine	DLC06P	INC/HAL/CFL/LED	1	8	0	14	99%	2%	≤1 sec
Lutron	LCP128	LP-RPM-4U-120	Control Panel	1	14	0	1	99%	0%	≤1 sec
Lutron	LCP128	LP-RPM-4A-120	Control Panel	1	14	0	--	97%	2%	≤1 sec
CC	iLumen	SC120-06-UN	Control Panel	1	21	0	--	99%	5%	≤1 sec

1. Starts 6 seconds at 1%

2. Starts 4 seconds at 1%

3. Does not start from low end at 1% point

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HL618TAT & HL618TCP Series - Phase Control 120V Dimmers

For Reference Only - Incandescent and Electronic Low Voltage Rated Dimmers

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Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 277V	Peak Repetitive Current (A)	Max Dimming percentage (%)	Min Dimming percentage(%)	Start Time
Leviton	Decora	6673	CFL/INC	1	8	0	10	98%	4%	≤1 sec
Leviton	SureSlide	6631-2	INC	1	17	0	12.5	98%	2%	≤1 sec
Leviton	Illumatech	RP106	INC	1	17	0	11	99%	8%	≥1 sec ⁴
Leviton	Illumatech	IP106	INC	1	17	0	11	99%	4%	≤1 sec
Leviton	Vizia	VP106	INC	1	17	0	11	99%	4%	≤1 sec
Leviton	Decora	6161	INC	1	14	0	12.5	98%	8%	≤1 sec
Leviton	SureSlide	6633-P	INC	1	17	0	10	99%	5%	≥1 sec ³
Lutron	Toggler	TG-600P	INC	1	17	0	12	98%	8%	≤1 sec
Lutron	Nova T	NTFTU-5A	FLR	1	6	0	5	98%	22%	≤1 sec
Lutron	Diva	DV600P	INC	1	17	0	9	97%	3%	≥1 sec ⁵
Lutron	Maestro	MAW600	INC/HAL	1	17	0	10.5	98%	1%	≥1 sec ⁵
Lutron	Lumea	LG600P	INC/HAL	1	17	0	8.5	98%	3%	≤1 sec
Lutron	Skylark	S600P	INC/HAL	1	17	0	9	98%	3%	≤1 sec
Lutron	Skylark Contour	CT103P	INC/HAL/MLV	1	28	0	14	98%	6%	≤1 sec
Lutron	Diva	DV603P	INC/HAL	1	17	0	9	98%	4%	≤1 sec
CWD	Aspire	9530AW	INC	1	17	0	17	99%	5%	≥3 sec ⁶
CWD	React	RI061	INC/HAL	1	17	0	18	99%	16%	≥1 sec ⁷
CWD	Skye	SF8AP	FLR	1	9	0	10.5	99%	29%	≤1 sec
CWD	Toggle	TI061	INC/HAL	1	17	0	19.5	93%	5%	≤1 sec
Leviton	Acenti	ATX10	FLR	1	28	0		98%	9%	≤1 sec
Lutron	Ariadni	AY-600P	INC/HAL	1	17	0	12	99%	6%	≤1 sec
Lutron	Contour	CT103P	INC/HAL	1	28	0	14	98%	5%	≤1 sec
Lutron	Contour	CT-600P	INC/HAL	1	17	0	8	98%	2%	≤1 sec
Lutron	Rotary	D-600P	INC/HAL	1	17	0	11.5	98%	5%	≥1 sec ⁸
Lutron	Diva	DV-600P	INC	1	17	0	8	97%	2%	≥1 sec ⁵
Lutron	Glyder	GL-600P	INC/HAL	1	17	0	9.5	98%	3%	≥1 sec ⁵
Lutron	Lumia	LG-600PH	INC/HAL	1	17	0	7.5	98%	1%	≥1 sec ⁵
Lutron	Maestro	MA600	INC	1	17	0	10	98%	1%	≥1 sec ⁵
Lutron	Nova	N-600	INC/HAL	1	17	0	5	98%	1%	≥1 sec ⁵
Lutron	Skylark	S-600P	INC/HAL	1	17	0	9	98%	1%	≥1 sec ⁵
Lutron	Centurion	C-600P	INC/HAL	1	17	0	5	97%	2%	≤1 sec
Lutron	Ariadni	AYLV-600P	MLV	1	13	0	11.5	97%	7%	≤1 sec
Lutron	Glyder	GLV600	MLV	1	13	0	9	97%	3%	≤1 sec
Lutron	Diva	DVLV-600P	MLV	1	13	0	9	96%	5%	≤1 sec
Lutron	Lumina	LG-103P	INC/HAL	1	28	0	14	97%	8%	≤1 sec
Lutron	Skylark	SLV-600P	MLV	1	13	0	9	97%	3%	≤1 sec
Lutron	Vierti	VT-600	INC/MLV	1	17	0	12	97%	1%	≥1 sec ⁹
Lutron	Nova	NTLV600	MLV	1	13	0	5	97%	5%	≤1 sec
Lutron	Nova	NT600	INC	1	17	0	5	98%	2%	≤1 sec
Leviton	Vizia	VPE06	ELV	1	17	0	--	98%	4%	≤1 sec
Leviton	Illumatech	IPE04	ELV	1	8	0	--	98%	2%	≤1 sec
Leviton	Vizia	VZE04	ELV	1	11	0	--	99%	7%	≤1 sec
Lutron	Maestro	MAELV600	ELV	1	17	0	--	97%	7%	≤1 sec
Lutron	Faetra	FAELV500	ELV	1	14	0	--	97%	6%	≤1 sec
Lutron	Diva	DVELV303P	ELV	1	8	0	--	92%	4%	≤1 sec
Lutron	Skylark	SELV300P	ELV	1	8	0	--	93%	3%	≤1 sec
Lightolier	Sunrise	ZP260QEW	ELV	1	7	0	--	92%	2%	≤1 sec
CWD	Devine	DE06P	ELV	1	17	0	--	96%	6%	≤1 sec

- Starts 6 seconds at 1%
- Starts 4 seconds at 1%
- Does not start from low end at 1% point
- Not Dimming Smoothly. Low end Start Time > 1Sec.
- Low end start time > 1Sec
- Starts with 3 seconds delay at 3%
- Not Dimming Smoothly

- Does not start from low end up to 5% point. Not dimming smoothly
- Dimmer leds go up and down at power on

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HL612ICAT Series - 0-10V Dimming Controls

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Lamps or Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 277V	Max Dimming percentage(%)	Min Dimming percentage(%)
CWD	SKYE	SF10P	0-10V	1	50	72	100%	13%
CWD	DEVINE	DF10P	0-10V	1	50	72	100%	13%
Leviton	Illumatech	IP710-DL	0-10V	1	50	52	100%	13%
Lutron	NTFTV	NOVA T	0-10V	1	40	96	100%	14%
Lutron ¹	DIVA ¹	DVTV ¹	0-10V	1	40	96	100%	15%

1. Refer to Lutron Power Pack for additional information.

HL618TAT & HL618TCP Series - 0-10V Dimming Controls

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Lamps or Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit) at 120V	Maximum Recommended Luminaires (per circuit) at 277V	Max Dimming percentage(%)	Min Dimming percentage(%)
CWD	SKYE	SF10P	0-10V	1	34	48	99%	12%
CWD	DEVINE	DF10P	0-10V	1	34	48	100%	11%
Leviton	Illumatech	IP710-DL	0-10V	1	34	34	100%	11%
Lutron	NTFTV	NOVA T	0-10V	1	28	64	100%	11%
Lutron ¹	DIVA ¹	DVTV ¹	0-10V	1	28	64	100%	10%

1. Refer to Lutron Power Pack for additional information.

Dimmer Notes:

- 1) Start time is measured at the lowest dimmer setting.
- 2) Some LED rated dimmers have a "rapid start" design used to provide a momentary power boost for LED and CFL lamps during start-up. When a LED luminaire is on a dimmer with "rapid start" the boost may cause a momentary flash of the LED lighting. This "flash" is generated by the dimmer, and may be more noticeable when the dimmer is at a low setting. A solution is available in the following CWD dimmers which provide adjustment capability of the "rapid start": Devine (DAL06P), Accell (AL06P), and Trace (TAL06P). Refer to product specifications online at www.cooperwiringdevices.com for more details.

Dimming Guide Disclaimer:

- 1) CC is Cooper Controls, part of Eaton's Cooper Lighting business. CWD is Eaton's Cooper Wiring Devices business. Cooper Controls and Cooper Wiring Devices brand names, where identified above, are trade names or trademarks of Eaton or its Affiliates.
Leviton® is a registered trademark of Leviton Manufacturing Co. Inc., Lutron® is a registered trademark of Lutron Electronics Co. Inc., Lightolier is a registered trademark of Philips Lighting, and any other brands are trade names or trademarks of their respective company, and are not associated with Cooper Controls or Cooper Wiring Devices.
- 2) Testing conducted by Cooper Lighting is not a substitute for and does not imply certification by an independent laboratory or any other standards certification.
Refer to the manufacturer specifications for more detailed information on product certifications and standards.
- 3) This is a representative list of typical dimmers as tested by Cooper Lighting for performance with the designated LED luminaires only. Test data contained in this literature is based upon dimmers obtained in the marketplace. Information about these other manufacturers products is obtained from packaging and published information made available by the manufacturer and is deemed to be reliable, but has not been verified.
Dimmer performance and perceived limitations of the dimmers are based on factors outside of Cooper Lighting's control. The specifications of these dimming controls and their conditions of use may change without notice to Cooper Lighting or any other user.
Cooper Lighting makes no specific recommendation on product selection and there are no warranties of performance or compatibility implied.
Installer must ensure proper local and national electrical codes are followed; and that the dimmer application and condition of use is per dimmer manufacturer instructions and guidelines.