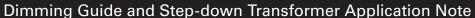
SLD - Surface LED Downlight Series





The SLD LED Series provides continuous dimming with reverse or forward phase cut dimmers; as low as 5% (80 CRI) and 6% (90 CRI) (depending upon dimmer and low-end trim of the dimmer).

D4 SLD6

SLD405830WH SLD606830WH SLD405930WH SLD606930WH

Phase Control Dimming



Figure 2
Junction Box
Installation

120V AC dimmed power to Halo Surface LED Downlights

120V AC Downlights

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

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









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	•	•		•

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".

SLD4-SLD6 80CRI

SLD4 SLD6

SLD405830WH SLD606830WH

LED Rated Dimmers

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Leviton	IllumaTech	IPL06-10Z	INC/CFL/LED	1	9	88%	6%	>2 sec
Leviton	SureSlide	6674	INC/CFL/LED	1	9	90%	6%	>2 sec
Lutron	Diva	DVCL-153P	INC/CFL/LED	1	10	86%	16%	>1 sec
Lutron	Maestro	MACL-153M	INC/HAL/CFL/LED	1	10	76%	19%	≤1 sec
CWD	DEVINE	DAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	19	98%	5%	≤1 sec
CWD	ACCELL	AAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	19	90%	9%	>1 sec
CWD	SKYE	SAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	19	98%	12%	≤1 sec
CWD	SKYE	SLC03PC-PTA	INC/HAL/CFL/LED	1	19	93%	8%	>1 sec
CWD	DEVINE	DLC03P	INC/HAL/CFL/LED	1	19	95%	8%	>1 sec
CWD	TRACE	TAL06P	INC/HAL/CFL/LED	1	19	93%	17%	>1 sec
CC	iLumin	SC277-06-UN-1P-ML-20	Control Platform	1	99	72%	17%	≤1 sec*

^{*}Slight Flicker at Low Light

CWD = Eaton's Cooper Wiring Devices Business

CC = Eaton's Cooper Controls Business

Dimmer Rating - Load Type

INC = Incandescent

HAL = Halogen

FLR = Fluorescent

MLV = Magnetic Low Voltage

ELV = Electric Low Voltage

CFL = Compact Fluorescent

LED = Light Emitting Diode

2

SLD4 90CRI

SLD4

SLD405930WH

LED Rated Dimmers

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Leviton	IllumaTech	IPL06-10Z	INC/CFL/LED	1	10	88%	6%	>1 sec
Leviton	SureSlide	6674	INC/CFL/LED	1	10	90%	6%	>1 sec
Lutron	Diva	DVCL-153P	INC/CFL/LED	1	10	85%	9%	>1 sec
Lutron	Maestro	MACL-153M	INC/HAL/CFL/LED	1	10	75%	11%	≤1 sec
CWD	DEVINE	DAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	19	98%	5%	≤1 sec
CWD	ACCELL	AAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	19	90%	9%	≥1 sec
CWD	SKYE	SAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	19	98%	12%	≤1 sec
CWD	SKYE	SLC03PC-PTA	INC/HAL/CFL/LED	1	19	93%	8%	>1 sec
CWD	DEVINE	DLC03P	INC/HAL/CFL/LED	1	19	95%	8%	>1 sec
CWD	TRACE	TAL06P	INC/HAL/CFL/LED	1	19	99%	17%	≤1 sec
CC	iLumin	SC277-06-UN-1P-ML-20	Control Platform	1	99	72%	17%	≤1 sec*

^{*}Slight Flicker at Low Light

CWD = Eaton's Cooper Wiring Devices Business

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Dimmer Rating - Load Type

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MLV = Magnetic Low Voltage

ELV = Electric Low Voltage

CFL = Compact Fluorescent

LED = Light Emitting Diode

SLD6 90CRI

SLD6

SLD606930WH

LED Rated Dimmers

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Leviton	IllumaTech	IPL06-10Z	INC/CFL/LED	1	9	87%	7%	>2 sec
Leviton	SureSlide	6674	INC/CFL/LED	1	9	89%	8%	>1 sec
Lutron	Diva	DVCL-153P	INC/CFL/LED	1	9	80%	8%	>1 sec
Lutron	Maestro	MACL-153M	INC/HAL/CFL/LED	1	9	72%	10%	>2 sec
CWD	DEVINE	DAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	18	96%	7%	≤1 sec
CWD	ACCELL	AAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	18	87%	9%	≤1 sec
CWD	SKYE	SAL06P	INC/HAL/FLR/MLV/ELV/CFL/LED	1	18	95%	13%	≤1 sec
CWD	SKYE	SLC03PC-PTA	INC/HAL/CFL/LED	1	18	91%	7%	>2 sec
CWD	DEVINE	DLC03P	INC/HAL/CFL/LED	1	18	93%	6%	>2 sec
CWD	TRACE	TAL06P	INC/HAL/CFL/LED	1	18	99%	10%	≤1 sec
СС	iLumin	SC277-06-UN-1P-ML-20	Control Platform	1	91	82%	13%	≤1 sec

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Dimmer Rating - Load Type

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HAL = Halogen

FLR = Fluorescent

MLV = Magnetic Low Voltage

ELV = Electric Low Voltage

CFL = Compact Fluorescent

LED = Light Emitting Diode

SLD4-SLD6 80CRI

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SLD4	SLD6
SLD405830WH	SLD606830WH

Incandescent and Electronic Low Voltage Rated Dimmers - For Reference Only

Dimmer Make	Dimmer Series	Dimmer Model#	Dimmer Rating	Minimum Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Leviton	Decora	6673-P0W	CFL, INC	1	19	90%	16%	≤1 sec¹
Leviton	Sureslide	6631-2	INC	1	31	90%	13%	≤1 sec
Leviton	Illumatech	RP106	INC	1	31	95%	16%	>1 sec²
Leviton	Trimatron	IPI06	INC	1	31	96%	15%	>1 sec
Leviton	Sureslide	6633-P	INC	1	31	96%	8%	>1 sec
Leviton	PlugIn Lamp Dimmer	TBI03	INC	1	8	99%	25%	>1 sec
Lutron	Toggler	TG-600P	INC	1	31	92%	21%	≤1 sec
Lutron	Diva	DV600P	INC/HAL	1	31	87%	14%	≤1 sec
Lutron	Lumea	LG600P	INC	1	31	89%	15%	>1 sec
Lutron	Skylark	S600P	INC/HAL	1	31	88%	15%	≤1 sec
Lutron	Skylark Contour	CT103P	INC/HAL/MLV	1	52	88%	15%	≤1 sec
Lutron	Diva	DV603P	INC/HAL	1	31	88%	18%	≤1 sec
CWD	REACT	RI061	INC/HAL	1	31	99%	22%	>1 sec²
CWD	Devine	DEL06P	ELV	1	15	93%	11%	≤1 sec
Leviton	Vizia	VPE06	ELV	1	21	99%	16%	≤1 sec
Leviton	Illumatech	IPE04	ELV	1	15	92%	17%	≤1 sec
Leviton	Vizia	VZE04	ELV	1	21	96%	20%	≤1 sec
Lutron	Maestro	MAELV600	ELV	1	31	91%	19%	≤1 sec
Lutron	Faedra	FAELV500	ELV	1	26	91%	19%	≤1 sec
Lutron	Diva	DVELV303P	ELV	1	15	81%	16%	≤1 sec
Lutron	Skylark	SELV300P	ELV	1	15	82%	16%	≤1 sec
Lightolier	Sunrise	ZP260QEW	ELV	1	13	83%	13%	≤1 sec

- 1. Slight flash at startup
- 2. Slight issues with dimming smoothness

CWD = Eaton's Cooper Wiring Device Business

Dimmer Rating - Load Type

INC = Incandescent

HAL = Halogen

MLV = Magnetic Low Voltage

ELV = Electric Low Voltage

CFL = Compact Fluorescent

Cooper Lighting

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SLD4 90CRI

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SLD405930WH

Incandescent and Electronic Low Voltage Rated Dimmers - For Reference Only

Dimmer Make	Dimmer Series	Dimmer Model #	Dimmer Rating	Minimum Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Leviton	Decora	6673-P0W	CFL, INC	1	19	90%	16%	≤1 sec¹
Leviton	Sureslide	6631-2	INC	1	31	90%	13%	≤1 sec
Leviton	Illumatech	RP106	INC	1	31	95%	16%	>1 sec²
Leviton	Trimatron	IPI06	INC	1	31	96%	15%	≥1 sec
Leviton	Sureslide	6633-P	INC	1	31	96%	8%	>1 sec
Leviton	PlugIn Lamp Dimmer	TB103	INC	1	8	99%	25%	>1 sec
Lutron	Toggler	TG-600P	INC	1	31	92%	21%	≤1 sec
Lutron	Diva	DV600P	INC/HAL	1	31	87%	14%	≤1 sec
Lutron	Lumea	LG600P	INC	1	31	89%	15%	>1 sec
Lutron	Skylark	S600P	INC/HAL	1	31	88%	15%	≤1 sec
Lutron	Skylark Contour	CT103P	INC/HAL/MLV	1	52	88%	15%	≤1 sec
Lutron	Diva	DV603P	INC/HAL	1	31	88%	18%	≤1 sec
CWD	REACT	RI061	INC/HAL	1	31	99%	22%	>1 sec²
CWD	Devine	DEL06P	ELV	1	15	93%	11%	≤1 sec
Leviton	Vizia	VPE06	ELV	1	21	99%	16%	≤1 sec
Leviton	Illumatech	IPE04	ELV	1	15	92%	17%	≤1 sec
Leviton	Vizia	VZE04	ELV	1	21	96%	20%	≤1 sec
Lutron	Maestro	MAELV600	ELV	1	31	91%	19%	≤1 sec
Lutron	Faedra	FAELV500	ELV	1	26	91%	19%	≤1 sec
Lutron	Diva	DVELV303P	ELV	1	15	81%	16%	≤1 sec
Lutron	Skylark	SELV300P	ELV	1	15	82%	16%	≤1 sec
Lightolier	Sunrise	ZP260QEW	ELV	1	13	83%	13%	≤1 sec

^{1.} Slight flash at startup

CWD = Eaton's Cooper Wiring Device Business

<u> Dimmer Rating - Load Type</u>

INC = Incandescent

HAL = Halogen

MLV = Magnetic Low Voltage

ELV = Electric Low Voltage

CFL = Compact Fluorescent

^{2.} Slight issues with dimming smoothness

SLD6 90CRI

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SLD606930WH

Incandescent and Electronic Low Voltage Rated Dimmers - For Reference Only

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Dimmer Make	Dimmer Series	Dimmer Model#	Dimmer Rating	Minimum Luminaires (per circuit)	Maximum Recommended Luminaires (per circuit)	Max Dimming percentage (%)	Min Dimming percentage (%)	Start Time
Leviton	Decora	6673-P0W	CFL, INC	1	18	90%	10%	≤1 sec
Leviton	Sureslide	6631-2	INC	1	29	93%	9%	≤1 sec
Leviton	Illumatech	RP106	INC	1	29	98%	10%	>1 sec
Leviton	Trimatron	IPI06	INC	1	29	98%	10%	≤1 sec
Leviton	Sureslide	6633-P	INC	1	29	99%	6%	>1 sec
Leviton	PlugIn Lamp Dimmer	TBI03	INC	1	7	99%	16%	>1 sec
Lutron	Toggler	TG-600P	INC	1	29	85%	17%	≤1 sec
Lutron	Diva	DV600P	INC/HAL	1	29	91%	10%	≤1 sec
Lutron	Lumea	LG600P	INC	1	29	91%	10%	≤1 sec
Lutron	Skylark	S600P	INC/HAL	1	29	90%	10%	≤1 sec
Lutron	Skylark Contour	CT103P	INC/HAL/MLV	1	48	91%	10%	≤1 sec
Lutron	Diva	DV603P	INC/HAL	1	29	91%	12%	≤1 sec
CWD	REACT	RI061	INC/HAL	1	29	98%	14%	>1 sec
CWD	Devine	DEL06P	ELV	1	14	95%	7%	≤1 sec
Leviton	Vizia	VPE06	ELV	1	19	100%	10%	≤1 sec
Leviton	Illumatech	IPE04	ELV	1	14	93%	12%	≤1 sec
Leviton	Vizia	VZE04	ELV	1	19	97%	13%	≤1 sec
Lutron	Maestro	MAELV600	ELV	1	29	93%	12%	≤1 sec
Lutron	Faedra	FAELV500	ELV	1	24	91%	12%	≤1 sec
Lutron	Diva	DVELV303P	ELV	1	14	81%	11%	≤1 sec
Lutron	Skylark	SELV300P	ELV	1	14	82%	10%	≤1 sec
Lightolier	Sunrise	ZP260QEW	ELV	1	12	82%	9%	≤1 sec

CWD = Eaton's Cooper Wiring Device Business

Dimmer Rating - Load Type

INC = Incandescent

HAL = Halogen

MLV = Magnetic Low Voltage

ELV = Electric Low Voltage

CFL = Compact Fluorescent

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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:

- 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.



Application Note - H277, H347 and H347200 step-down transformers are qualified to drive multiple Halo LED on a single circuit in Non-IC construction. Installation of these transformers with individual LED fixtures on circuits with multiple LED loads is not recommended. This is not recommended due to resulting multiple inductive currents pulled by each transformer; in this situation the majority of the power would then be reactive (VARS) and not real (WATTS). If H277, H347 or H347200 transformers should be used individually on each LED fixture in a single circuit, then that circuit should be sized for lowered power factor as well as increased apparent power on the circuit. H277, H347 and H347200 are UL/cUL listed for use with Halo recessed housings: H750T, H750TCP, H7T, H7TNB, H7RT.

Step Down Transformers

H277 = Steps 277 line voltage down to 120 volts. Attaches to knockout on first fixture's junction box in a circuit and is 300VA rated. H277 is a UL recognized Component listed under the luminaire UL/cUL listing for Halo Non-IC housings.

H347 and H347200 = Steps 347 line voltage down to 120 volts. Attaches to knockout on first fixture's junction box in a circuit. H347 is 75VA and H347200 is 200VA rated. H347 is a CSA/UL Listed Component for use under the luminaire UL/cUL listing with Halo Non-IC housings.

Transformer Load - H277 (300VA)

- 1. H277 Transformer at full loading consumes a maximum of 16W of power.
- 2. When a dimmer or switch is on the secondary (120V) side of the transformer, power is consumed by the transformer when the dimmer or switch is in "OFF" mode at 6.5W and in "ON" mode at 16W maximum under full loading.
- 3. When a switch is on the primary (277V) side ahead of the transformer, power is consumed only in "ON" mode to a maximum of 16W under full loading. (Use of a dimmer ahead of the transformer is not recommended)

Transformer Load - H347 (75VA)

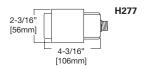
- 1. H347 Transformer at full loading consumes a maximum of 15W of power.
- 2. When a dimmer or switch is on the secondary (120V) side of the transformer, power is consumed by the transformer when the dimmer or switch is in "OFF" mode at 2.5W and in "ON" mode at 15W maximum under full loading.
- 3. When a switch is on the primary (347V) side ahead of the transformer, power is consumed only in "ON" mode to a maximum of 15W under full loading. (Use of a dimmer ahead of the transformer is not recommended)

Transformer Load - H347200 (200VA)

- 1. H347200 Transformer at full loading on 120V side consumes a maximum of 28W of power.
- 2. When a dimmer or switch is on the secondary (120V) side of the transformer, power is consumed by the transformer when the dimmer or switch is in "OFF" mode at 9.2W and in "ON" mode at 28W maximum under full loading.
- 3. When a switch is on the primary (347V) side ahead of the transformer, power is consumed only in "ON" mode to a maximum of 28W under full loading. When a switch is on the primary (277V) side ahead of the transformer, power is consumed only in "ON" mode to a maximum of 12W under full loading. (Use of a dimmer ahead of the transformer is not recommended)

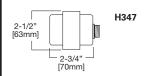


H277 277V Step Down Transformer, 300VA



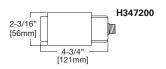


H347 347V Step Down Transformer, 75VA



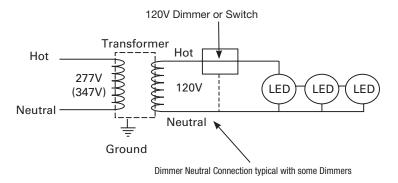


H347200 347V Step Down Transformer, 200VA

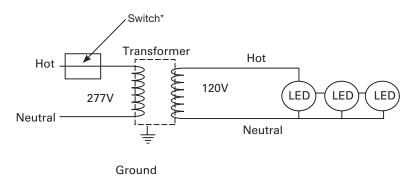


SLD - Surface LED Downlight Series									
SLD Maximum Units on Step Down Transformer Powered Circuits									
	VA Rating	SLD4, SLD6 - 80 CRI SLD4 - 90 CRI	SLD6 - 90 CRI						
		Max # of Fixtures	Max # of Fixtures						
H277	300	18	16						
H347	75	4	4						
H347200	200	12	10						

Transformer with Dimmer/Switch on 120V Secondary

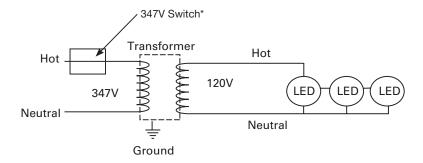


Transformer with Switch on 277V Primary



*Use of a dimmer ahead of the transformer is not recommended

Transformer with Switch on 347V Primary



*Use of a dimmer ahead of the transformer is not recommended

