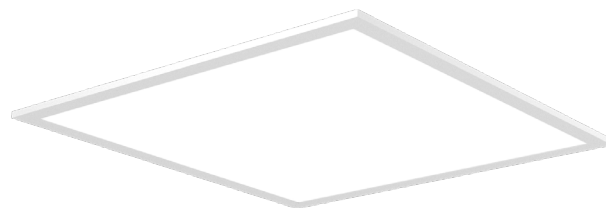# Columbia LIGHTING

CBT-LSCS
## BACK-LIT TROFFER

*trade*SELECT®

FEATURES

- Switchable Lumen technology: 4400/3300/2750 lumens (1x4 and 2x2) 5500/4400/3300 lumens (2x4)

- Switchable CCT technology: 3500/4000/5000K

- 1x4, 2x2, and 2x4 sizes

- 0-10V 1% Dim to Off driver (standard) provides superior dimming capabilities

- IC rated

- Back-lit design and frosted lens provides smooth, even illumination across the face of the luminaire

- All CBT LSCS Generation A units are priced as single units and must be ordered as single units. Two packaging options are available

SERVICE PROGRAMS

STOCK QS10

SWITCHABLE LUMEN & CCT | UL CERTIFIED | DLC LISTED | DAMP LOCATION | UL Sanitation | ISO 4
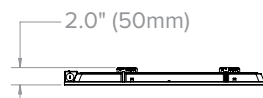
2.0" (50mm)

Typical Dimensions and Weights

	CBT14 (1x4)	CBT22 (2x2)	CBT24 (2x4)
Length	11.9" / 303 mm	23.7"/ 603 mm	23.7"/ 603 mm
Width	47.8"/ 1213 mm	23.7"/ 603 mm	47.8"/ 1213 mm
Height	2.0" / 50 mm	2.0" / 50 mm	2.0" / 50 mm
Weight*	4.99lbs / 2.26kg	4.92lbs / 2.23kg	9.37lbs / 4.25kg

*Base configurations; weight varies by option

SPECIFICATIONS

CONSTRUCTION
- Aluminum lens frame has a matte white finish
- Luminaire housing is die formed code-gauge steel
- Low profile design is ideal for shallow plenum applications

OPTICS
- Acrylic micro-optics over each LED provide edge to edge illumination without pixelation or bright spots
- Frosted textured lens provides smooth surface brightness

INSTALLATION
- Integral T-bar clips for secure mounting to 9/16" and 15/16" grid ceiling
- For surface mount applications use surface mount kit accessories
- For plaster or sheet rock installations, use flange kit accessories

ELECTRICAL
- 60,000 hour LEDs at L90 for reduced maintenance
- Operates at 120–277V. 1V minimum low-end trim recommended when paired with a 0-10V dimmer
- 0–10V 1% Dim to Off driver is standard. See additional info on page 6
- Switchable luminaire default settings at highest lumen output and 3500K

PACKAGING
- All CBT LSCS Generation A units are priced as single units and must be ordered as single units. Two packaging options are available

CERTIFICATIONS
- All luminaires are built to UL 1598 standards and bear appropriate cULus labels
- Damp location label standard
- Adheres to LM79, LM80, and TM21 industry standards for photometrics and lifetime calculations

CERTIFICATIONS (CONTINUED)
- DLC® (DesignLights Consortium Qualified.) Please refer to the DLC website for specific product qualifications at www.designlights.org
- UL Sanitation Certified to NSF 2 Food Equipment standard for non-food zones
- Tested in accordance with ISO 14644-1; suitable for ISO Class 4-9 positive and negative pressure clean rooms
- Emergency battery options are California Energy Commission (CEC) Title 20 Compliant
- Suitable for ambient temperatures from -25°C to 25°C

WARRANTY
- 5 year warranty

KEY DATA

KEY DATA	
Lumen Range	2750 - 5700
Wattage Range	24w - 48w
Efficacy Range (LPW)	115 -123
Reported Life (Hours)	L90/60,000

Current

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Columbia LIGHTING

CBT-LSCS
BACK-LIT TROFFER

Gray Shading = **Service Program** Limit of 50 Luminaries   **QS10**

ORDERING GUIDE

Example: CBT14-A-LSCS-EDD-2PK

CATALOG #

CBT – Size – Generation – Selectable – Driver – Packaging – Options

Model	Size		Generation		Selectable		Driver		Packaging		Options	
CBT Back-lit Troffer	**14**	1x4	**A**	Generation A	**LSCS**	Lumen Selectable, CCT Selectable	**EDD**	0-10V Dim to Off [1]	**Blank** [4]		**ELL14**	10W Emergency Battery Pack (CEC Title 20 Compliant) Installed
	22	2x2							**2PK**	2 Pack [2]	**C588**	5 Wire Flex
	24	2x4									**C688**	6 Wire Flex [3]

Notes:

1. EDD - Dim to Off Standard. See additional detail on page 6
2. 2PK - must be ordered as single units in even quantities, as this product is packed two fixtures per box. It should be noted in receiving documents that one box has two units and should be received as two units.
3. Can only be ordered with ELL14 Battery Option
4. Fixtures are priced as single fixtures and must be ordered as single fixtures. Standard packaging is a master carton containing four individually boxed fixtures. It should be noted in receiving documents that one master carton includes four individually boxed fixtures and should be received as four fixtures

STOCKED OPTIONS

Catalog Number	Description	Setting	Lumens			Watts	Lumens Per Watt (LPW)			Weight	Carton Qty	UPC
			3500K	4000K	5000K		3500K	4000K	5000K			
CBT14-A-LSCS-EDD-2PK	1x4 Back-Lit Troffer; 4400/3300/2750 Switchable Lumens; 3500/4000/5000K Switchable CCT; 80 CRI; 0-10V 1% Dim to Off; 120-277V	LOW	2750	2850	2800	24	115	119	117	4.99 lb 2.19 kg	2^	840141412184
CBT14-A-LSCS-EDD		MED	3300	3400	3350	28	118	121	120		4*	Single Fixture: 840141432670 Master Carton: 10840141432677
		HIGH	4400	4600	4500	38	116	121	118			
CBT22-A-LSCS-EDD-2PK	2x2 Back-Lit Troffer; 4400/3300/2750 Switchable Lumens; 3500/4000/5000K Switchable CCT 80 CRI; 0-10V 1% Dim to Off; 120-277V	LOW	2750	2850	2800	24	115	119	117	4.96 lb 2.24 kg	2^	840141412207
CBT22-A-LSCS-EDD		MED	3300	3400	3350	28	118	121	120		4*	Single Fixture: 840141432687 Master Carton: 10840141432684
		HIGH	4400	4600	4500	38	116	121	118			
CBT24-A-LSCS-EDD-2PK	2x4 Back-Lit Troffer; 5500/4400/3300 Switchable Lumens; 3500/4000/5000K Switchable CCT 80 CRI; 0-10V 1% Dim to Off; 120-277V	LOW	3300	3450	3400	28	118	123	121	9.37 lb 4.25 kg	2^	840141412221
CBT24-A-LSCS-EDD		MED	4400	4600	4500	38	116	121	118		4*	Single Fixture: 840141432700 Master Carton: 10840141432707
		HIGH	5500	5800	5700	48	115	121	119			

Notes:

^ Must be ordered as single units in even quantities as this item is packed two fixtures per carton.

* Must be ordered in single units, with no quantity restrictions as standard packaging is a master carton containing four individually boxed fixtures.

MADE TO ORDER OPTIONS

Factory Installed Flexible Conduit & Battery Options

	Catalog Number	UPC	Description	Carton Qty
☐	**CBT14-A-LSCS-EDD-ELL14**	840141430058	1x4 Back-lit LED Troffer, 4400/3300/2750lm, 3500/4000/5000K, Dim to Off, Factory Installed 10W EM Battery (CEC Title 20 Compliant)	1
☐	**CBT22-A-LSCS-EDD-ELL14**	840141430065	2x2 Back-lit LED Troffer, 4400/3300/2750lm, 3500/4000/5000K, Dim to Off, Factory Installed 10W EM Battery (CEC Title 20 Compliant)	1
☐	**CBT24-A-LSCS-EDD-ELL14**	840141430072	2x4 Back-lit LED Troffer, 5500/4400/3300lm, 3500/4000/5000K, Dim to Off, Factory Installed 10W EM Battery (CEC Title 20 Compliant)	1
☐	**CBT14-A-LSCS-EDD-C588**	603134946468	1x4 Back-lit LED Troffer, 4400/3300/2750lm, 3500/4000/5000K, Dim to Off, Factory Installed 5 Wire Flexible Conduit	1
☐	**CBT22-A-LSCS-EDD-C588**	603134946482	2x2 Back-lit LED Troffer, 4400/3300/2750lm, 3500/4000/5000K, Dim to Off, Factory Installed 5 Wire Flexible Conduit	1
☐	**CBT24-A-LSCS-EDD-C588**	603134946505	2x4 Back-lit LED Troffer, 5500/4400/3300lm, 3500/4000/5000K, Dim to Off, Factory Installed 5 Wire Flexible Conduit	1
☐	**CBT14-A-LSCS-EDD-ELL14-C688**	603134946475	1x4 Back-lit LED Troffer, 4400/3300/2750lm, 3500/4000/5000K, Dim to Off, Factory Installed 10W EM Battery & 6 Wire Flexible Conduit	1
☐	**CBT22-A-LSCS-EDD-ELL14-C688**	603134946499	2x2 Back-lit LED Troffer, 4400/3300/2750lm, 3500/4000/5000K, Dim to Off, Factory Installed 10W EM Battery & 6 Wire Flexible Conduit	1
☐	**CBT24-A-LSCS-EDD-ELL14-C688**	603134946512	2x4 Back-lit LED Troffer, 5500/4400/3300lm, 3500/4000/5000K, Dim to Off, Factory Installed 10W EM Battery & 6 Wire Flexible Conduit	1

Can be ordered in single unit (odd number) quantities as this is a factory installed option

ELL14 option uses a 10 watt Emergency Battery. To determine lumen output in emergency mode, multiply 10w by the fixture lumens per watt (LPW). EX: 10w x 123LPW = 1230 Lumens in Emergency Mode

CBP Gen A fixtures with ELL14 option require a remote mounted test switch, we recommend Dual-Lite PLRTS

Current

Columbia
L I G H T I N G

CBT-LSCS
BACK-LIT TROFFER

DATE:	LOCATION:
TYPE:	PROJECT:
CATALOG #:	

ORDERING GUIDE CONTINUED

Accessories (Order Separately)	Part #	UPC	Notes & Restrictions
Flange Kits			
☐ **FK14**	FK14	078531000745	1x4 Single Flange Kit
☐ **FK22**	FK22	078531000752	2x2 Single Flange Kit
☐ **FK24**	FK24	078531038991	2x4 Single Flange Kit

Surface Mount Kits - Suitable for CBT standard fixture only. Not compatible with any options or other field installable kits. Height = 2.5 Inches (see dimensions section on page 5)

☐ **PSMK14 1x4 Surface Mount Kit**	93302543	662055127905	1x4 Flat Panel Surface Mount Kit.
☐ **PSMK22 2x2 Surface Mount Kit**	93302544	662055127912	2x2 Flat Panel Surface Mount Kit.
☐ **PSMK24 2x4 Surface Mount Kit**	93302545	662055127929	2x4 Flat Panel Surface Mount Kit.

Emergency Battery - CBP Gen A EMBB Kits use uses a 10 watt Emergency Battery. To Determine lumen output in emergency mode, multiply 10w by the fixture lumens per watt (LPW). Ex: 10w x 123 LPW = ~1230 lumens in emergency mode.
CBP GEN A fixtures with ELL14 option require a remote mounted test switch, we recommend the Dual Lite PLRTS

☐ **CBP14A EMBB Kit**	93308995	662055313940	1x4 CBP Gen A EMBB (CEC Title 20 Compliant) Field Installable Kit
☐ **CBP2224A EMBB Kit**	93308998	662055313971	2x2 & 2x4 CBP Gen A EMBB (CEC Title 20 Compliant) Field Installable Kit

347V

☐ **CBP14A 347V Kit**	93308996	662055313957	1x4 CBP Gen A 347V Field Installable Kit
☐ **CBP2224A 347V Kit**	93308999	662055313988	2x2 & 2x4 CBP Gen A 347V Field Installable Kit

Dimming Bypass Module

☐ **CBP14A DTS Kit**	93308997	662055313964	1x4 CBP Gen A DTS Field Installable Kit
☐ **CBP2224A DTS Kit**	93309000	662055313995	2x2 & 2x4 CBP Gen A DTS Field Installable Kit

Switch Cover

☐ **PSC Switch Cover 50PK**	93167456	840141413426	CBP Gen A Selectable Driver Switch Cover

DLC LISTINGS

Size	DLC Model #	DLC Product ID #
1x4	CBT14-A-LSCS-EDD-2PK-HIGH-3500K	S-V0XH25
	CBT14-A-LSCS-EDD	S-0BBXCH
2x2	CBT22-A-LSCS-EDD-2PK-HIGH-3500K	S-TGP9ED
	CBT22-A-LSCS-EDD	S-6LZF85
2x4	CBT24-A-LSCS-EDD-2PK-HIGH-3500K	S-9KC4SA
	CBT24-A-LSCS-EDD	S-J8QJ2F

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CBT-LSCS
BACK-LIT TROFFER

DIMENSIONS

Basic Version

2x2 example

2.0" (50mm)

23.7" (603mm)

2x4 example

2.0" (50mm)

47.8" (1213mm)

23.7" (603mm)

1x4 example

2.0" (50mm)

11.9" (303mm)

47.8" (1213mm)
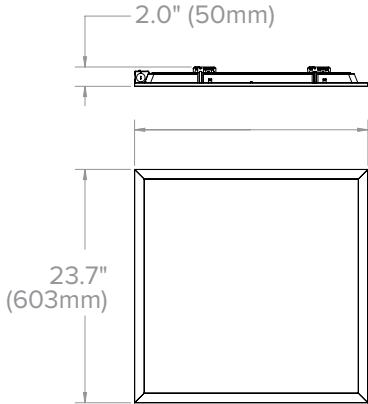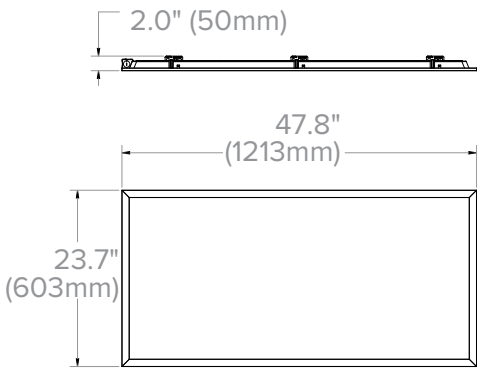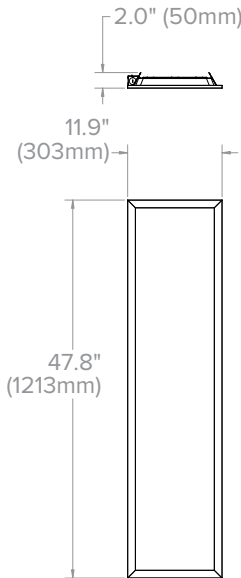
2x4 example with EMBB kit

2.0" (50mm)   3.6" (91mm)

6.49" (419mm)

23.7" (603mm)

47.8" (1213mm)   47.8" (1213mm)
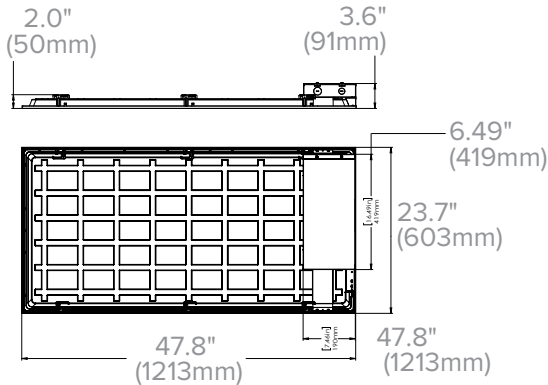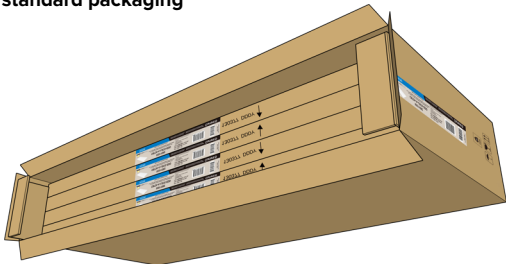
PACKAGING INFO

4 Pack — standard packaging

Standard 4 Pack. Fixtures are priced as single fixtures and must be ordered as single fixtures. Standard packaging is a master carton containing four individually boxed fixtures. It should be noted in receiving documents that one master carton includes four individually boxed fixtures and should be received as four fixtures

2 Pack option — indicate 2PK in "Packaging" section of ordering SKU
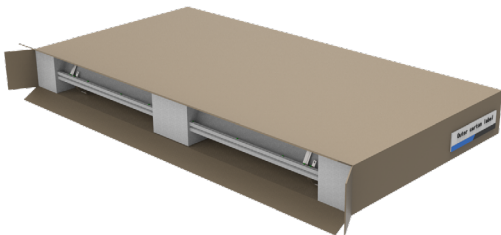
2 Pack. Must be ordered as single units in even quantities, as this product is packed two fixtures per box. It should be noted in receiving documents that one box has two units and should be received as two units.

Current ⊙

currentlighting.com/columbialighting

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Columbia LIGHTING

CBT-LSCS
BACK-LIT TROFFER

ACCESSORY DIMENSIONS

Surface Mount PSMK Dimensions - 2x2 example see below chart for all size dimensions

0.51in
(13.0mm)

0.20in
5.0mm
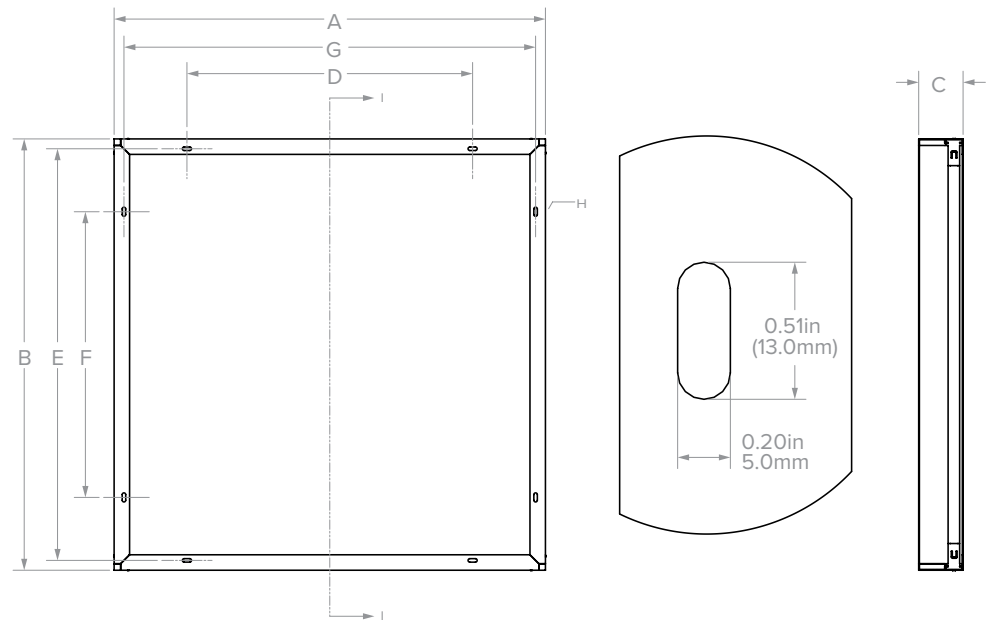
Product Code	Description	A (in)	B (in)	C (in)	D (in)	E (in)	F (in) Between Holes	G (in)
93302543	PSMK-14	12.05	48.0	2.5	1 hole	46.88	16.0 (3 holes)	10.92
93302544	PSMK-22	24.16	24.16	2.5	16.0	23.06	16.0	23.06
93302545	PSMK-24	24.16	48.0	2.5	16.0	46.88	16.0 (3 holes)	23.06

Control Box

16.49" (418.9mm)

7.46"
(189.6mm)

1.94"
(49.3mm)

PSC Switch Cover

2.68" (68.0mm)

2.52" (64.0mm)

0.41" (10.4mm)
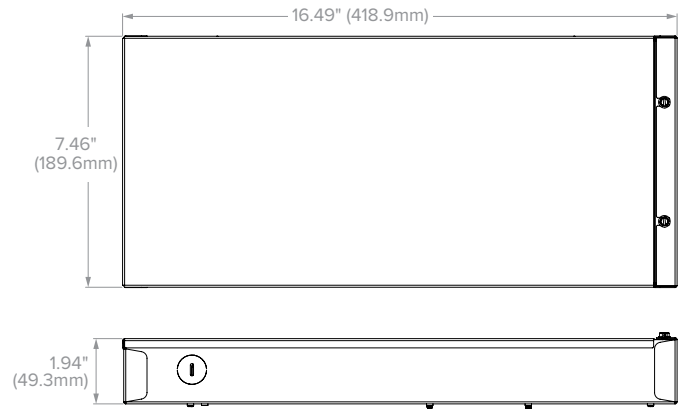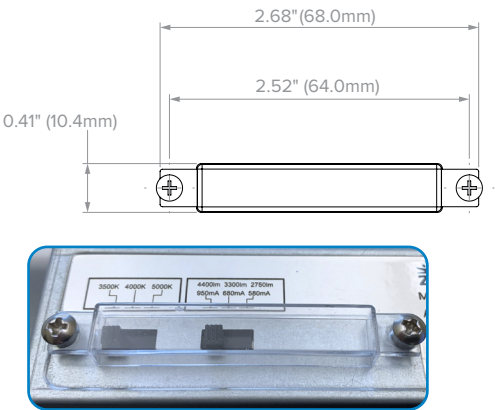
ADDITIONAL INFO

LSCS Switches Default Settings

Maximum Lumen Output and 3500K CCT

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BACK-LIT TROFFER
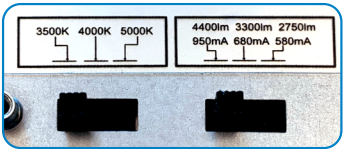
0-10V DIMMER COMPATIBILITY

Fixture operates at 120-277V. 0-10V dimmable driver, down to 1%.

1V minimum low-end trim recommended when paired with a 0-10V dimmer.

List of suitable dimmers based on laboratory testing. Compatibility must be verified by customer before install. Columbia cannot guarantee dimmer compatibility
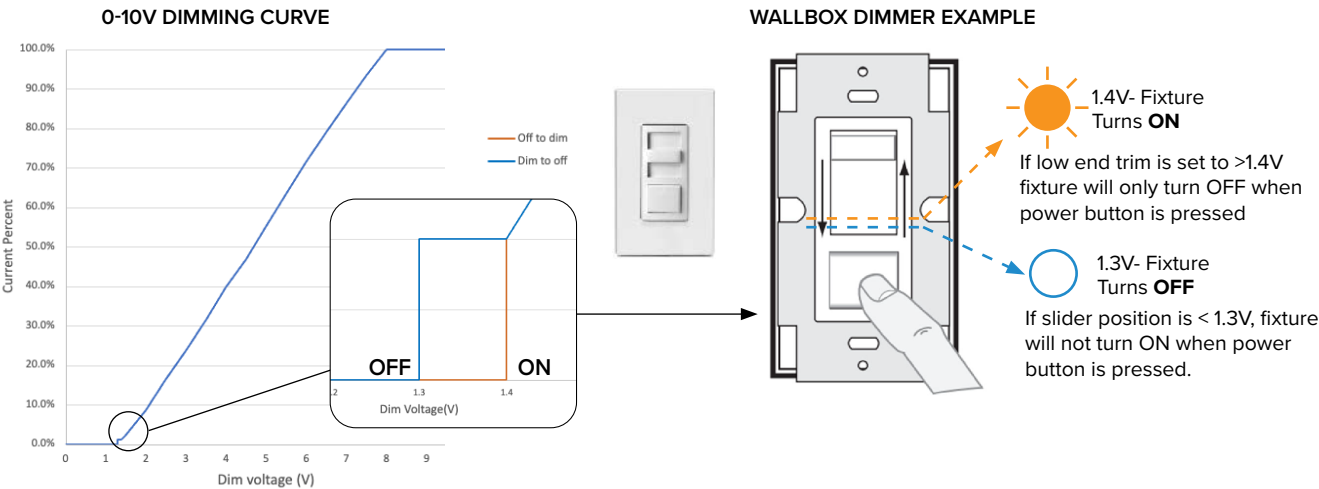
- NX Lighting Controls RSD710
- NX Lighting Controls PSD710
- Lutron® Diva DVST
- LUTRON DVTV
- LUTRON NTSTV-DV
- Eaton® DF10P-C1
- Synergy® ISD BC120/277
- Enerlites® 51300L

ADDITIONAL DIMMING INFORMATION: DIMMING CURVE

0-10V DIMMING CURVE

WALLBOX DIMMER EXAMPLE

1.4V- Fixture Turns **ON**

If low end trim is set to >1.4V fixture will only turn OFF when power button is pressed

1.3V- Fixture Turns **OFF**

If slider position is < 1.3V, fixture will not turn ON when power button is pressed.

DIM TO DARK FUNCTION

Dimmer Low End Trim Settings	ON/OFF Operation		Dimmer Control Range
> 1.4V	**ON/OFF** Toggle power control only		Full output to Low End Trim Setting
1.3V to 1.4V	**ON** Adjust dimmer control above 1.4V + Set power control to ON	**OFF** Set power control to OFF	Full output to Low End Trim Setting
< 1.3V	**ON** Adjust dimmer control above 1.4V + Set power control to ON	**OFF** Set power control to OFF or Adjust dimmer below 1.3V level	Full output to OFF

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