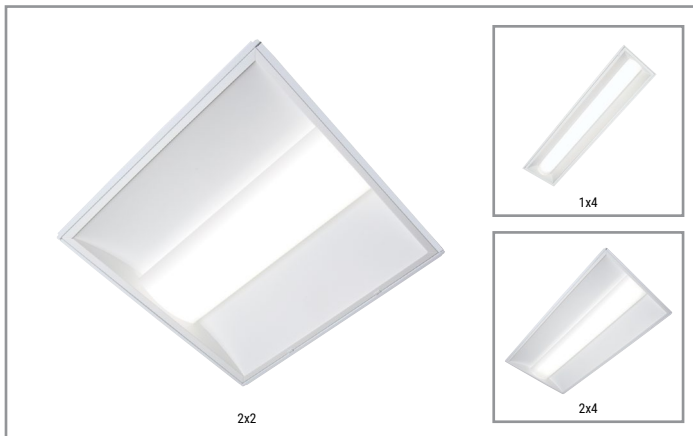


Project		Catalog #		Type	
Prepared by		Notes		Date	



# Metalux

## Cruze SB Selectable Troffer

Cruze SB Selectable Lumens and CCT  
1x4 / 2x2 / 2x4

### Typical Applications

Office • Education • Healthcare • Hospitality • Retail

### Product Certification



### Product Features



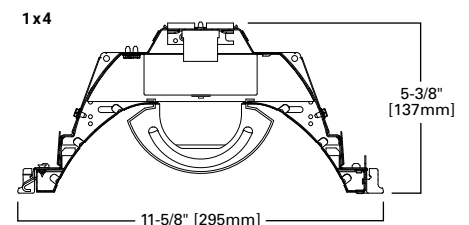
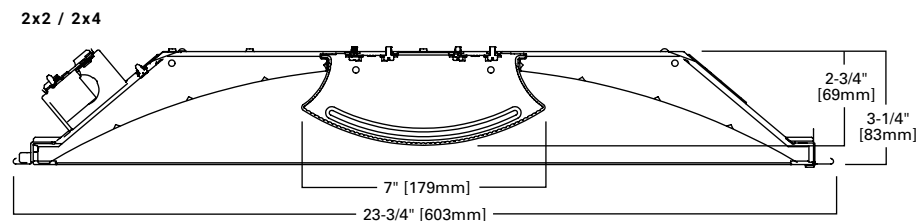
### Interactive Menu

- Order Information [page 2](#)
- Photometric Data [page 5](#)
- Control Solutions [page 6](#)
- Product Warranty

### Top Product Features

- Matte white door provides room side access to driver and LED
- Design friendly with (3) selectable color temperatures and (3) selectable lumen packages
- Curved and square lens for an upgraded look
- High performance efficacy up to 146 lumens per watt
- Integrated sensor systems - occupancy, daylight and IoT connectivity

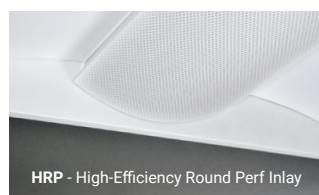
### Dimensional and Mounting Details



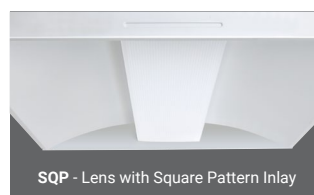
### Shielding Options



Ribbed Frosted Acrylic Lens (standard)



HRP - High-Efficiency Round Perf Inlay



SQP - Lens with Square Pattern Inlay

See ordering information for more shielding options.

[additional product diagrams](#)

## Order Information

SAMPLE ORDER NUMBER: **24CZSB-SCT3-UNV**

Domestic Preferences	Rating	Series	Shielding	Voltage
<b>Domestic Preferences</b> <sup>(1)</sup>	<b>Rating</b>	<b>Series</b>	<b>Shielding</b>	<b>Voltage</b>
<b>[Blank]</b> =Standard <b>BAA</b> =Buy American Act <b>TAA</b> =Trade Agreements Act	<b>[Blank]</b> =Standard <b>ATW-SW4</b> = Chicago Rated <sup>(2)</sup>	<b>14CZSB-SCT3</b> =1' x 4' Cruze SB Selectable <b>22CZSB-SCT3</b> =2' x 2' Cruze SB Selectable <b>24CZSB-SCT3</b> =2' x 4' Cruze SB Selectable	<b>[Blank]</b> =Ribbed Frosted Acrylic Lens (standard) <b>S</b> =Smooth Frosted Acrylic Lens <b>HRP</b> =High-Efficiency Round Perf Inlay <b>SQP</b> =Smooth Lens with Square Pattern Insert	<b>UNV</b> =Universal Voltage 120-277
<b>Notes</b> (1) Only product configurations with these designated prefixes are built to be compliant with the Buy American Act of 1933 (BAA) or Trade Agreements Act of 1979 (TAA), respectively. Please refer to <a href="#">DOMESTIC PREFERENCES</a> website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.	<b>Notes</b> (2) No sensor or installed FLEX options available with ATW-SW4 option.	<b>Notes</b> <b>Selectable Lumens</b> (See table on pg. 2 for details) <b>1x4</b> -27/37/47 <b>2x2</b> -27/37/47 <b>2x4</b> -41/52/64 <b>Selectable Color</b> 3000K/3500K/4000K		

Emergency Options	Flex	Driver Type
<b>Emergency Options</b>	<b>Flex</b> <sup>(11)</sup>	<b>Driver Type</b>
<b>[Blank]</b> =No emergency <b>EL7W</b> =7-watt 120V-277V emergency battery pack <sup>(8)</sup> <b>EL10W</b> =10-watt 120V-277V emergency battery pack <sup>(8)</sup> <b>EL14W</b> =14-watt 120V-277V emergency battery pack <sup>(8)</sup> <b>EL10WSD</b> =10W emergency battery pack with self-diagnostic installed <sup>(8)</sup> <b>EL14WSD</b> =14W emergency battery pack with self-diagnostic installed <sup>(8)</sup> <b>ETRD</b> =Emergency Transfer Relay with dimming control <sup>(9)</sup>	<b>[Blank]</b> =Standard <b>Dimming Flex</b> <b>A3/8-4/18GDIM</b> =Flex, hot, neutral, ground, 2 dimming leads <b>A3/8-5/18GDIM</b> =Flex, 2 hots, neutral, ground, 2 dimming leads <b>Non-Dimming Flex</b> <b>A3/8-2/18G</b> =Flex, hot, neutral, ground <b>A3/8-3/18G</b> =Flex, 2 hots, neutral, ground	<b>[Blank]</b> =Standard (0-10V Driver, 10%-100%)
<b>Notes</b> (8) Factory installed with integral test switch/indicator/laser test. For approximate delivered lumens multiply the lumens per watt of the desired fixture by the wattage of the emergency battery pack (100 lm/W x 7=700 lumens). IES-format photometry for luminaire under emergency operation available. Battery option increases total height by 1 inch. (9) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). ETRD option only requires one relay when used on a dimming fixture.	<b>Notes</b> (11) Multiple options available in online configurator. See additional notes on Flex below.  <b>Flexible Metal Conduit Options</b>  Flex options available for 0-10V dimming control, emergency and night light functions. 72-inch factory-installed and pre-wired to driver, fitted to luminaire housing access plate with 90° enclosed FMC connector. Not all options may be combined and installation ratings vary by type.	

Integrated Sensing Systems	Options	Packaging	Accessories
<b>Integrated Sensing Systems</b> <sup>(15)</sup>	<b>Options</b>	<b>Packaging</b>	<b>Accessories (order separately)</b>
<b>[Blank]</b> =No Sensor <b>WAA</b> =WAA=WaveLinX PRO Wireless Integrated Sensor <sup>(A)</sup> <b>WPN</b> =WaveLinX PRO Wireless Node without Sensor <sup>(A)</sup> <b>WAB</b> =WaveLinX LITE Wireless Integrated Sensor <sup>(B)</sup>	<b>DV</b> =Dual Band <sup>(12)</sup> <b>PAF</b> =Painted After Fabrication	<b>[Blank]</b> =Standard (Unit Pack) <b>PAL</b> =Job Pack, out of carton <b>PALC</b> =Job Pack, in carton	<b>CZ2-EQCLIP-U PK</b> =CZ2" Earthquake Clip Kit (4 clips per bag kit) <sup>(13)</sup> <b>DF-14W-U</b> =1' x 4' Drywall Frame Kit <b>DF-22W-U</b> =2' x 2' Drywall Frame Kit <b>DF-24W-U</b> =2' x 4' Drywall Frame Kit <b>SK-22-WS</b> =2' x 2' Shallow Surface Mount Kit <b>SK-24-WS</b> =2' x 4' Shallow Surface Mount Kit <b>SK-14-WT</b> =1' x 4' Tall Surface Mount Kit
<b>Notes</b> Integrated options must be used in conjunction with the associated system and may not be compatible with other options or accessories. Please refer to the following: (A) Consult WaveLinX PRO system pages for additional details and compatibility. (B) WaveLinX LITE devices are not currently compatible with the WaveLinX Wireless Area Controller. Consult WaveLinX LITE system pages for additional details and compatibility.	<b>Notes</b> (12) Provides blank band on opposite side from sensor band to provide symmetric appearance.		<b>Notes</b> (13) An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture.

## Non-configurable SKUs

Size	Catalog Number	Lumen Setting	CCT	CRI (Min)	Delivered Nominal Lumens	Watts	Efficacy (lm/W)
2X2	22CZSB-SCT3-UNV	Low	3000K	80	2693	20.0	135
			3500K		2839	19.5	146
			4000K		2813	19.9	141
		Medium	3000K		3616	27.8	130
			3500K		3859	26.9	143
			4000K		3784	27.7	137
		High	3000K		4527	36.4	124
			3500K		4896	35.0	140
			4000K		4743	36.3	131
2X4	24CZSB-SCT3-UNV	Low	3000K	80	3948	29.4	134
			3500K		4161	28.6	145
			4000K		4196	29.2	144
		Medium	3000K		4956	37.8	131
			3500K		5262	36.6	144
			4000K		5276	37.5	141
		High	3000K		6348	50.4	126
			3500K		6807	48.5	140
			4000K		6794	50.1	136
1X4	14CZSB-SCT3-UNV	Low	3000K	80	2676	20.5	131
			3500K		2847	19.8	144
			4000K		2866	20.5	140
		Medium	3000K		3578	28.6	125
			3500K		3879	27.5	141
			4000K		3840	28.6	134
		High	3000K		4496	37.7	119
			3500K		4923	35.9	137
			4000K		4825	37.7	128

## Energy and Performance Data

### Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (60,000 hours) <sup>(2)</sup>	Theoretical L70 (Hours) <sup>(3)</sup>
25°C	> 85%	> 135,000

Notes: (2) Supported by IES TM-21 standards. (3) Theoretical values represent estimations commonly used; however, refer to the IES position on LED Product Lifetime Prediction, IES PS-10-18, that explains proper use of IES TM-21 and LM-80.

### Shielding

Lumen Adjustment Factors			
Size	S	SQP	HRP
1X4	1.01	0.64	0.88
2X2	1.05	0.67	0.85
2X4	1.05	0.67	0.85

### Shipping Data

Catalog No.	Wt.
14CZSB-SCT3	12.5 lbs.
22CZSB-SCT3	22 lbs.
24CZSB-SCT3	20.5 lbs.

## Product Specifications

### Construction

- Die formed of code gauge prime cold rolled steel with full length die-formed stiffeners
- Unibody endplates attached with interlocking tabs and screws
- Hemmed side flanges
- Four auxiliary fixture end suspension points provided
- Optional earthquake clips available

### Integrated Controls

- 0-10V dimming to 10% standard
- WaveLinX wireless sensor compatible for standalone, controlled, connected, and IoT capability

### LED and Light Engine

- Selectable Color temperature choices 3000K, 3500K, and 4000K
- Selectable lumen output choices of low, medium, high
- TM21 life at 60,000 hours up to L90 and calculated L70 exceeds 135,000 hrs.
- Driver 120-277V Standard
- Default CCT/Lumen setting is 4000K and Medium Power

### Driver and CCT/Lumen Select

- Selectable switches secured behind housing reflector for easy access
- Service from below, room-side accessibility
- Easy install and maintenance with door assembly

### Emergency Battery Options

- Optional emergency battery available in 7, 10 and 14W
- Self diagnostic emergency battery option available
- 90-minute backup period for code compliance
- Factory installed integral test switch visible from room side
- Integral emergency transfer relay options available

### Door Assembly, Hinge/Latch

- Positive cam action steel latches with baked white enamel finish
- Safety-lock THinges allow hinging and latching either side
- Door assembly hinges down for easy access from below

### Door Frame / Optical Lens

- Die formed, heavy gauge flat steel door
- Mitered corners and painted after fabrication
- Baked matte white enamel finish
- Positive light seals
- Ribbed acrylic frosted lens is standard
- Other Lens options are available - Smooth frosted (S), High-efficiency round perf inlay (HRP) and Square Pattern insert (SQP)
- Replacement lenses available, contact factory
- Lens is acrylic with features on the face and sides to optimize the direct and indirect lighting contributions for improved glare and efficacy

### Compliance

- IC rated for insulation contact
- cULus listed for damp locations
- RoHS compliant
- Tested to IESNA LM-79 and LM-80
- Stated life tested to TM21 standards
- Options to meet Buy American and other domestic preference requirements

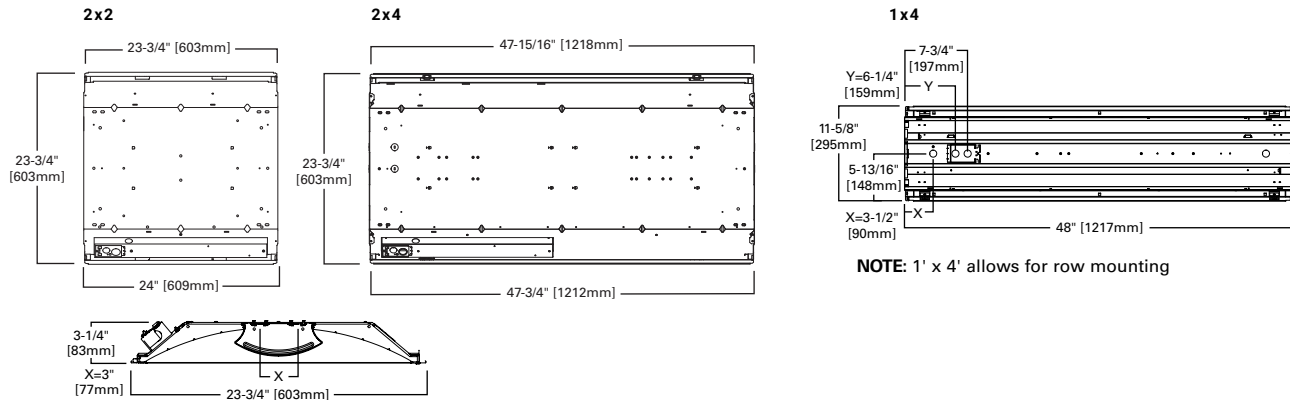
### Warranty

- Limited five-year warranty standard. Optional ten year warranty available.

### Finish

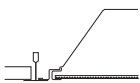
- Pre-paint matte white
- 90% reflective, matte white enamel finish
- Full fixture housing pre-painted matte white (choose PAF option for "Paint after Fabrication")

## Dimensional and Mounting Details

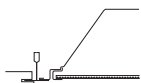


## Ceiling Compatibility

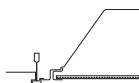
**G**  
Grid/Lay-in  
Standard



**G**  
Concealed T



**G**  
Slot Grid



**Ceiling Type**

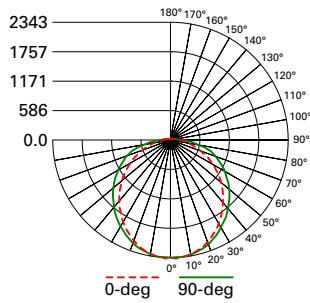
Exposed Grid  
Concealed T  
Slot Grid  
Flange

**Trim Type**

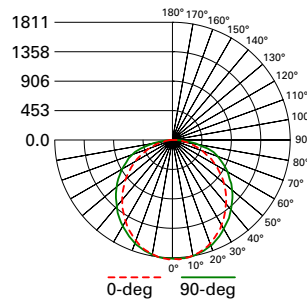
Standard  
Standard  
Standard  
\*

## Photometric Data

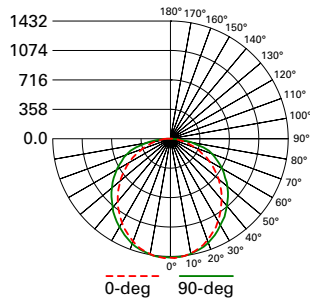
 View IES files



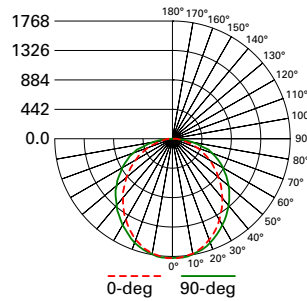
**24CZSB-SCT3-UNV HIGH 3500K**  
 Electronic Driver  
 Linear LED 3500K  
 Spacing criterion: (II) 1.2 x mounting height, (L) 1.28 x mounting height  
 Lumens: 6807  
 Input Watts: 48.5W  
 Efficacy: 140 lm/W  
 Test Report:  
 24CZSB-SCT3-UNV-HIGH-3500K.IES



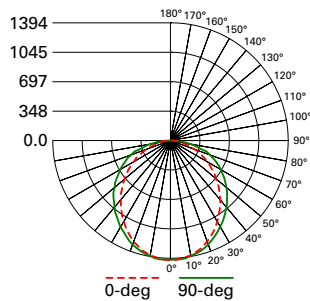
**24CZSB-SCT3-UNV MED 3500K**  
 Electronic Driver  
 Linear LED 3500K  
 Spacing criterion: (II) 1.2 x mounting height, (L) 1.28 x mounting height  
 Lumens: 5262  
 Input Watts: 36.6W  
 Efficacy: 144 lm/W  
 Test Report:  
 24CZSB-SCT3-UNV-MID-3500K.IES



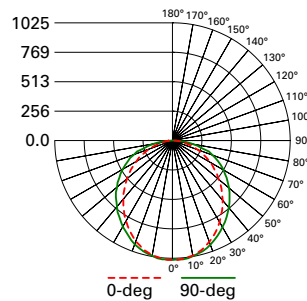
**24CZSB-SCT3-UNV LOW 3500K**  
 Electronic Driver  
 Linear LED 3500K  
 Spacing criterion: (II) 1.17 x mounting height, (L) 1.28 x mounting height  
 Lumens: 4161  
 Input Watts: 28.6W  
 Efficacy: 145 lm/W  
 Test Report:  
 24CZSB-SCT3-UNV-LOW-3500K.IES



**22CZSB-SCT3-UNV HIGH 3500K**  
 Electronic Driver  
 Linear LED 3500K  
 Spacing criterion: (II) 1.18 x mounting height, (L) 1.26 x mounting height  
 Lumens: 4896  
 Input Watts: 35W  
 Efficacy: 140 lm/W  
 Test Report:  
 22CZSB-SCT3-UNV-HIGH-3500K.IES



**22CZSB-SCT3-UNV MED 3500K**  
 Electronic Driver  
 Linear LED 3500K  
 Spacing criterion: (II) 1.18 x mounting height, (L) 1.26 x mounting height  
 Lumens: 3859  
 Input Watts: 26.9W  
 Efficacy: 143 lm/W  
 Test Report:  
 22CZSB-SCT3-UNV-MID-3500K.IES



**22CZSB-SCT3-UNV LOW 3500K**  
 Electronic Driver  
 Linear LED 3500K  
 Spacing criterion: (II) 1.18 x mounting height, (L) 1.26 x mounting height  
 Lumens: 2839  
 Input Watts: 19.5W  
 Efficacy: 146 lm/W  
 Test Report:  
 22CZSB-SCT3-UNV-LOW-3500K.IES



## Control Solutions

- WaveLinX LITE wireless
- WaveLinX PRO wireless
- WaveLinX CAT wired
- WaveLinX Wired



The Cruze SB with WaveLinX offers no-hassle lighting control with multiple luminaire level control solutions.



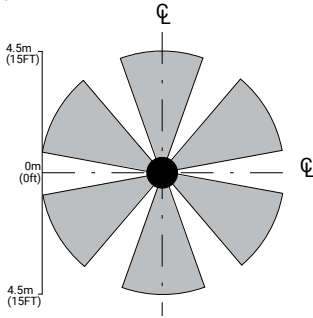
**WaveLinX PRO** is a wireless lighting control solution, for connected spaces, that significantly reduces a building's energy consumption. From a single floor to an entire campus, WaveLinX PRO connects more than lighting assets; it shares aggregated sensor data with the WaveLinX CORE platform and other building systems, so building owners can improve operations, spaces environment, and tenants' experience. WaveLinX PRO offers a rich portfolio of wireless devices, WaveLinX PRO-enabled luminaires, and an intuitive WaveLinX mobile app for office, education, warehouse, and parking garage applications.



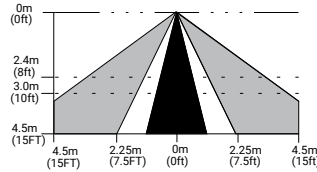
**WaveLinX LITE** is a cost effective, wireless digital lighting control solution, with out-of-the-box functionality, that saves energy and meets code. It's designed for applications that require occupancy-based, daylighting, or manual light control. Customize installations for office, education, warehouse and parking garages using the secure, simple mobile app.

### Integrated Sensor Coverage Pattern

TOP VIEW:

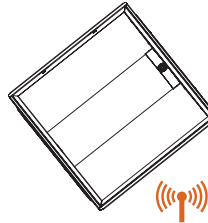


SIDE VIEW:

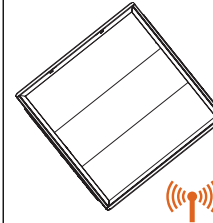


**Note:** Installation of integrated sensors within 3-ft (1m) of HVAC air vents is not recommended. The pattern shown is intended solely as a general guide and is not to scale.

With Integrated WaveLinX Sensor



With Integrated WaveLinX Node



Add a hidden WaveLinX sensor node (WPN, WLN) to your space lighting design!

**Allows to:**

- Keeps luminaire aesthetics
- Connect fixtures without the real estate to include sensor option such as downlights
- Connect sealed fixtures without a standard sensor option such as products for clinical space.

### Integrated Controls Options

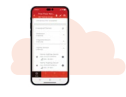
Option	Out of the Box Functionality	Luminaire Level Lighting Control (LLLC)	Automatic Dimming Photocell	Occupancy Sensing	CCT Control
WLS	X	X	X	X	
WLN		X			
WPS		X	X	X	
WPN		X			X
WPA		X	X	X	X

## Systems comparison chart

Cooper Lighting Solutions provides many lighting system solutions designed to satisfy code requirements and meet the unique needs of any project.



**Luminaire with standalone sensor**



**Standalone Spaces WaveLinX LITE**



**Standalone Spaces WaveLinX CAT**



**Networked Spaces WaveLinX PRO**



**Enterprise WaveLinX CORE**

<b>Occupancy</b>	Yes	Yes	Yes	Yes	Yes
<b>Daylighting</b>	Yes	Yes	Yes	Yes	Yes
<b>Wallstations</b>	-	Yes	Yes	Yes	Yes
<b>Gateways</b>	-	-	-	1 WAC	300 WACs
<b>Devices (MAX)</b>	-	40 per Area (1120 per space)	40 per Area	200 per WAC2	32,500 per CORE Enterprise
<b>Software</b>	-	WaveLinX LITE Mobile App	WaveLinX CAT Mobile App	WaveLinX Mobile App	CORE
<b>Areas</b>	-	28 per Space	Unlimited	50 per WAC2	up to 3,000
<b>Zones</b>	-	16 per Area	16 per Area	16 per Area	up to 9,000
<b>Scheduling</b>	-	-	-	Local	Global
<b>VividTune™</b>	-	-	-	Yes	Yes
<b>Plug-Load Control</b>	-	Yes	Yes	Yes	Yes
<b>Low-Voltage Power</b>	-	-	Yes	Yes	Yes
<b>Integration</b>	-	-	-	-	BACnet, API
<b>Dashboards</b>	-	-	-	-	Energy, Occupancy
<b>Configuration</b>	-	Installer	Installer	Technician	Technician / IT