Project		Catalog #		Type	
Prepared by		Notes		Date	

Metalux

Cruze SB 24CZ

2' x 4' LED Specification Grade Troffer

Typical Applications

Office • Education • Healthcare • Hospitality • Retail

Interactive Menu

Product Certification
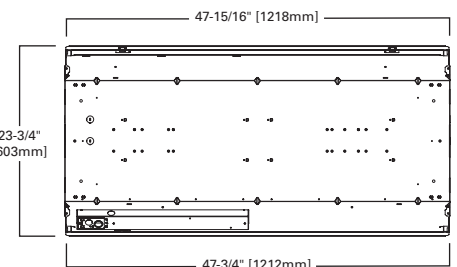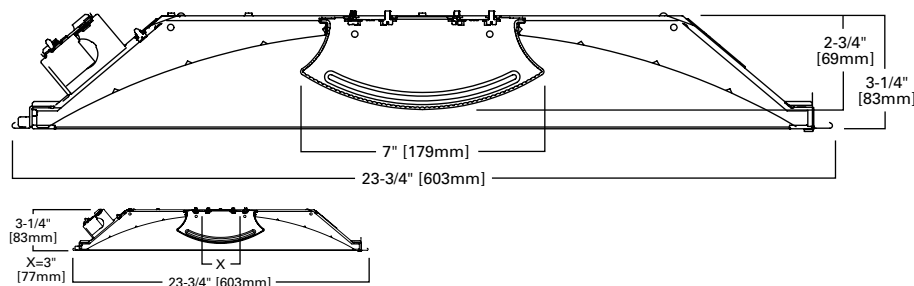
UL CERTIFIED SAFETY • DLC QPL LISTED • DLC QPL PREMIUM • Efficiency Standards T24 — Can be used to comply with California Title 24 Non-Residential • RoHS COMPLIANT • IC RATED • BAA BUY AMERICAN ACT • SYSTEMS CERTIFIED ISO

Product Features

Connected Systems • Bluetooth® • damp location • VividTune color tuning solutions

LINEAR DISCONNECT — Safe and convenient means of disconnecting power • MWS MODULAR WIRING SYSTEM — CLICK HERE

Top Product Features

- Matte white door provides access to drivers and LED from below
- Lens options - ribbed, smooth, round & square perforated
- High performance efficacy up to 157 lumens per watt
- Integrated sensor systems - occupancy, daylight and IoT connectivity
- VividTune CCT tuning options from 3000K–5000K or 2700K-6500K
- Options to meet Buy American and other domestic preference requirements

Dimensional and Mounting Details

2-3/4" [69mm]
3-1/4" [83mm]
7" [179mm]
23-3/4" [603mm]

3-1/4" [83mm]
X=3" [77mm]
X
23-3/4" [603mm]

47-15/16" [1218mm]
23-3/4" [603mm]
47-3/4" [1212mm]

Ceiling Compatibility

G Grid/Lay-in Standard

G Concealed T

G Slot Grid

Ceiling Type	Trim Type
Exposed Grid	Standard
Concealed T	Standard
Slot Grid	Standard
Flange	*

Shielding

2' wide versions shown for detail.

HRP - High-Efficiency Round Perf Inlay
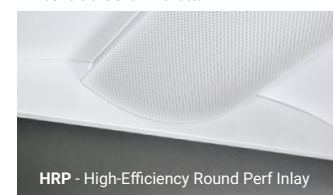
See ordering information for more shielding options.

COOPER Lighting Solutions

Order Information

SAMPLE ORDER NUMBER: **24CZ-LD5-45-UNV-L835-CD1-U**

Domestic Preferences	Rating	Series	Door Frame	Lamp Type	Lumen Output		Shielding	Voltage
Domestic Preferences (1)	**Rating**	**Series (2)**	**Door Frame**	**Lamp Type**	**Lumen Output**		**Shielding**	**Voltage (5)**
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	[Blank]=Standard ATW-SW4=Chicago Rated	24CZ=2x4 Cruze SB	[Blank]=Flat White Steel Door (standard)	LD5=LED 5.0	**Cruze SB** 30=3000 Lumens (3) 35=3500 Lumens 40=4000 Lumens 45=4500 Lumens 50=5000 Lumens 55=5500 Lumens 60=6000 Lumens 65=6500 Lumens 70=7000 Lumens (3) 75=7500 Lumens (3)	**Standard Efficacy** 30SE=3000 Lumens 35SE=3500 Lumens 40SE=4000 Lumens 45SE=4500 Lumens 50SE=5000 Lumens 55SE=5500 Lumens (4) 60SE=6000 Lumens (4) 65SE=6500 Lumens (3), (4)	[Blank]=Ribbed Frosted Acrylic Lens (standard) S=Smooth Frosted Acrylic Lens SQP=Smooth Lens with Square Pattern Insert RDP=Smooth Lens with Round Pattern Insert HRP=High-Efficiency Round Perf Inlay	UNV=Universal Voltage 120-277 347V=347 Volt (6) 48V=48 Volt Low-voltage (Class 2) (C) 120V=120 Volt (7) 277V=277 Volt (7)

Notes

(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 DOMESTIC PREFERENCES website for more information. Components shipped separately may be separately analyzed under domestic preference requirements.

(2) DesignLights Consortium® Qualified and classified for both DLC Standard and DLC Premium, refer to www.designlights.org for details.

(3) Not compatible with WN driver. (4) White tuning not available with this model.

(5) Products also available in non-US voltages and frequencies for international markets. (6) 347V versions are not available with emergency options. SD, 5LTD, and SR drivers with 347V are available but not DLC qualified. (7) Must specify voltage as 120V or 277V when ordering GTR2 option. (C) Consult WaveLinx Low-Voltage or DLVP system pages for additional details and compatibility.

Options	Emergency Options	CRI/CCT	Flex
Options	**Emergency Options**	**CRI/CCT**	**Flex**
GL=Single Element Fuse GM=Double Element Fuse	[Blank]=No emergency EL7W=7-watt 120V-277V emergency battery pack installed (8) EL14W=14-watt 120V-277V emergency battery pack installed (8) ELV7W=Low-voltage system, 7-watt emergency battery pack (C) ELV14W=Low-voltage system, 14-watt emergency battery pack (C) GTR2=Bodine Generator Transfer Relay (9), (10) ETRD=Iota Emergency Transfer Relay with dimming control (9)	L830=80CRI, 3000K L835=80CRI, 3500K L840=80CRI, 4000K L850=80CRI, 5000K L930=90CRI, 3000K L935=90CRI, 3500K L940=90CRI, 4000K L950=90CRI, 5000K L83050=80CRI 3000K-5000K White Tuning (11) L93050=90CRI 3000K-5000K White Tuning (11) L82765=80CRI 2700K-6500K White Tuning (11) L92765=90CRI 2700K-6500K White Tuning (11)	[Blank]=No Flex A3/8-4/18GDIM=3/8" Flex with 0-10V Dimming Leads A3/8-2/18G=3/8" Flex with line and common A3/8-5/18GDIM=Flex with 0-10V Dimming leads and Blue for alternate wiring. See below for details.

Notes

(8) 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. (9) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). GTR2 option includes 2 relays on fixtures with dimming drivers. ETRD option only requires one relay when used on a dimming fixture. (10) Must specify voltage as 120V or 277V when ordering GTR2 option. (C) Consult WaveLinx Low-Voltage or DLVP system pages for additional details and compatibility.

(11) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. May be combined with Wavelinx sensor control systems only.

Flexible Metal Conduit Options

Flex options available for 0-10V dimming control, DALI 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. See online configurator for all flex options.

A3/8-4/18GDIM series notes: Factory installed dimming option 3/8" flexible metal conduit with 2-#18 power and ground wires and 2-#18 UL-listed jacketed 0-10V +/- control wires. Meets UL 66, 83, 1479, 1569, 1581, 2556. NEC® 250.118, 300.22(C), 392, 396, 330, 501, 502, 503, 530, 504, 505, 518, 520, 530, 645, 72; Federal Specification A-A-59544 (formerly J-C-30B); all applicable OSHA and HUD Requirements. UL Classified 1-, 2-, and 3-hour penetration with applicable fire stop product (not included). May be surface mounted, fished and/or embedded in plaster. Cable tray and approved raceway rated, install per NEC®; Environmental Air-Handling Space Installation per NEC® 300.22(C).

Driver Type	No. of Drivers	Integrated Sensing Systems	Sensor Accessories	Packaging	Accessories
Driver Type	**No. of Drivers**	**Integrated Sensing Systems**	**Sensor Accessories**	**Packaging**	**Accessories (order separately) (18)**
CD=0-10V Driver (1%-100% Dimming) 5LTD=DALI Driver (5%-100% Dimming) 5LTHD=DALI Driver (1%-100% Dimming) LV=Low-voltage System Driver (0%-100% Dimming) (C) SD=Step Dimming Driver (50%-100% Dimming) (12) LH=Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming (F) W2A=White Tuning, 2 ch, Analog 0-10V Intensity and CCT Control (13) SR=Sensor-ready Driver (1%-100% Dimming)	1=1 Driver 2=2 Drivers	WAA=WaveLinx Wireless Integrated Sensor (14), (A) WAB=WaveLinx Lite Wireless Integrated Sensor (15), (B) WLA=Low-voltage Integrated Sensor (16), (C) SVPD1=0-10V Stand-alone Integrated Sensor (15), (D)	DV=Dual Band (17)	U=Unit Pack PAL=Job Pack, out of carton PALC=Job Pack, in carton	EQ-CLIP-U=T-BAR Safety Earthquake Clips (19) DF-24W-U=2' x 4' Drywall Frame Kit SK-24-WS=2' x 4' Shallow Surface Mount Kit SK-24-WT=2' x 4' Tall Surface Mount Kit ISHH-01=Programming Remote for Integrated Sensor (D) ISHH-02=Personal Control Remote for Integrated Sensor (D)

Notes

(12) Step dim (SD) driver option is not available with 3000, 3500, 4000, 7000 and 7500 lumen packages and 3000SE, 3500SE, 6000SE and 6500SE versions. (13) White tuning provides correlated color temperatures (CCT) between 3000K (warm) to 5000K (cool) or 2700K (warm) to 6500K (cool). Must be used in conjunction with W2A driver only. Must be used with two (2) 10V dimming control channels, 1 color, 1 intensity. May be combined with Wavelinx sensor control systems only.

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: (C) Consult WaveLinx Low-Voltage or DLVP system pages for additional details and compatibility. (F) Consult Marketplace Options - Lutron system pages for additional details and compatibility. Compatible only with driver series shown, and may require two or more drivers. Requires field commissioning to operate or dim. Contact Lutron at www.lutron.com.

(14) WAA sensor to be used with CD or W2A driver. (15) WAB and SVPD1 sensor to be used with CD driver. (16) WLA sensor to be used with LV driver.

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 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. (C) Consult WaveLinx Low-Voltage or DLVP system pages for additional details and compatibility. (D) Consult SVPD series system pages for additional details and compatibility.

(17) Provides blank band on opposite side from sensor band to provide symmetric appearance.

(19) An EQ Grid Clip is recommended for all 9/16" ceiling systems. Four required per fixture. (18) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

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: (D) For use with SVPD sensor only. Consult SVPD series system pages for additional details and compatibility.

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 1% standard
- WaveLinx wireless sensor compatible for standalone, controlled, connected, and IoT capability
- SVPD sensor compatible for standalone functionality
- Low-voltage sensor and driver compatible for WaveLinx Low-Voltage and DLVP applications
- DALI 2.0, Lutron, and step-dimming available

LED and Light Engine
- Long-life LED systems coupled with electrical driver
- Color accuracy ≤3-Step MacAdam ellipse (SDCM)
- Available in 3000K, 3500K, 4000K, or 5000K with a minimum CRI of 80
- L70 is more than 60,000 hours based on TM21 testing standards
- Available in 120-277V and 347V

Emergency Battery Options
- 120-277V battery available in 7W or 14W
- 90-minute backup period for code compliance
- Test switch with laser pointer and testing from floor feature for ease of use
- EZ Key feature prevents accidental discharge during construction
- Generator transfer options available

Finish
- Multistage, iron phosphate pretreatment
- Housing finished with 90% white enamel

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

Frame/Shielding
- Die formed, heavy gauge flat steel door
- Mitered corners and painted after fabrication
- Baked matte white enamel finish
- Positive light seals
- Acrylic frosted lens

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
- Can be used for State of California Title 24 high efficacy luminaire
- Options to meet Buy American and other domestic preference requirements
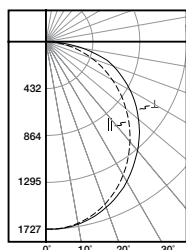
Warranty
- Five-year warranty standard. Optional ten year warranty available.

Photometric Data

View IES files
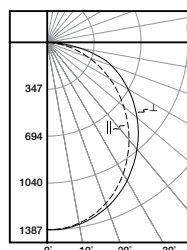
24CZ-LD5-40-UNV-L835-CD1-U
Electronic Driver
Linear LED 3500K
Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.26 x mounting height
Lumens: 3964
Input Watts: 29W
Efficacy: 136.7 LPW
Test Report: 24CZ-LD5-40-UNV-L835-CD1-U.IES

24CZ-LD5-50-UNV-L835-CD1-U
Electronic Driver
Linear LED 3500K
Spacing criterion: (II) 1.2 x mounting height, (⊥) 1.26 x mounting height
Lumens: 4988
Input Watts: 40.6W
Efficacy: 122.9 LPW
Test Report: 24CZ-LD5-50-UNV-L835-CD1-U.IES

Energy and Performance Data

Lumen Maintenance

Version	TM-21 Lumen Maintenance (60,000 hours) [2]	Theoretical L70 (Hours) [3]
Standard	> 89%	> 196,000
High Efficiency	> 93%	> 340,000

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		
S	RDP/SQP	HRP
1.05	0.673	0.849

Load Data (Stock Product)

Thd	12.9%
Power Factor	0.97
Weight (lbs.)	20.5
Low Temp. Start	-20ºC

Shipping Data

Catalog No.	Wt.
24CZ-LD5-45	20.5 lbs.
24CZ-LD5-55	20.5 lbs.

90 CRI

Lumen Adjustment Factors 80->90 CRI	
3000K	0.88
3500K	0.861
4000K	0.865
5000K	0.87

Example of Lumen Adjustment Calculation

24CZ-LD5-40-UNV-L835-CD1-U
at 90CRI at 3500K

Lumen Adjustment Factor = 0.861

Total Light Output =
3,964 lm x 0.861 = 3,413 lm

$$Efficacy = \frac{3,413\ lm}{29.4W} = 117.6\ lm/W$$

Energy and Performance Data

Catalog Logic (Ribbed Lens)	Delivered Lumens	Watts	Efficacy (lm/W)
24CZ-LD5-30-UNV-L830-CD1-U	2833	21.6	131
24CZ-LD5-30-UNV-L835-CD1-U	3010	21.6	139
24CZ-LD5-30-UNV-L840-CD1-U	3070	21.6	142
24CZ-LD5-30-UNV-L850-CD1-U	3321	21.6	154
24CZ-LD5-35-UNV-L830-CD1-U	3289	25.3	130
24CZ-LD5-35-UNV-L835-CD1-U	3494	25.3	138
24CZ-LD5-35-UNV-L840-CD1-U	3564	25.3	141
24CZ-LD5-35-UNV-L850-CD1-U	3855	25.3	152
24CZ-LD5-40-UNV-L830-CD1-U	3731	29.0	128
24CZ-LD5-40-UNV-L835-CD1-U	3964	29.0	137
24CZ-LD5-40-UNV-L840-CD1-U	4043	29.0	139
24CZ-LD5-40-UNV-L850-CD1-U	4374	29.0	151
24CZ-LD5-45-UNV-L830-CD1-U	4207	35.7	118
24CZ-LD5-45-UNV-L835-CD1-U	4469	35.7	125
24CZ-LD5-45-UNV-L840-CD1-U	4558	35.7	128
24CZ-LD5-45-UNV-L850-CD1-U	4931	35.7	138
24CZ-LD5-50-UNV-L830-CD1-U	4695	40.7	115
24CZ-LD5-50-UNV-L835-CD1-U	4988	40.7	123
24CZ-LD5-50-UNV-L840-CD1-U	5088	40.7	125
24CZ-LD5-50-UNV-L850-CD1-U	5503	40.7	135
24CZ-LD5-55-UNV-L830-CD1-U	5181	45.8	113
24CZ-LD5-55-UNV-L835-CD1-U	5504	45.8	120
24CZ-LD5-55-UNV-L840-CD1-U	5614	45.8	123
24CZ-LD5-55-UNV-L850-CD1-U	6073	45.8	133
24CZ-LD5-60-UNV-L830-CD1-U	5741	52.2	110
24CZ-LD5-60-UNV-L835-CD1-U	6099	52.2	117
24CZ-LD5-60-UNV-L840-CD1-U	6221	52.2	119
24CZ-LD5-60-UNV-L850-CD1-U	6729	52.2	129
24CZ-LD5-65-UNV-L830-CD1-U	6193	57.6	107
24CZ-LD5-65-UNV-L835-CD1-U	6579	57.6	114
24CZ-LD5-65-UNV-L840-CD1-U	6711	57.6	116
24CZ-LD5-65-UNV-L850-CD1-U	7259	57.6	126
24CZ-LD5-70-UNV-L830-CD1-U	6668	64.2	104
24CZ-LD5-70-UNV-L835-CD1-U	7084	64.2	110
24CZ-LD5-70-UNV-L840-CD1-U	7226	64.2	113
24CZ-LD5-70-UNV-L850-CD1-U	7816	64.2	122
24CZ-LD5-75-UNV-L830-CD1-U	7052	69.1	102
24CZ-LD5-75-UNV-L835-CD1-U	7491	69.1	108
24CZ-LD5-75-UNV-L840-CD1-U	7641	69.1	111
24CZ-LD5-75-UNV-L850-CD1-U	8265	69.1	120

Standard Efficacy Versions

Catalog Logic (Ribbed Lens)	Delivered Lumens	Watts	Efficacy (lm/W)
24CZ-LD5-30SE-UNV-L830-CD1-U	2878	23.5	122
24CZ-LD5-30SE-UNV-L835-CD1-U	3057	23.5	130
24CZ-LD5-30SE-UNV-L840-CD1-U	3118	23.5	133
24CZ-LD5-30SE-UNV-L850-CD1-U	3373	23.5	144
24CZ-LD5-35SE-UNV-L830-CD1-U	3324	28.6	116
24CZ-LD5-35SE-UNV-L835-CD1-U	3531	28.6	124
24CZ-LD5-35SE-UNV-L840-CD1-U	3602	28.6	126
24CZ-LD5-35SE-UNV-L850-CD1-U	3896	28.6	136
24CZ-LD5-40SE-UNV-L830-CD1-U	3783	32.6	116
24CZ-LD5-40SE-UNV-L835-CD1-U	4019	32.6	123
24CZ-LD5-40SE-UNV-L840-CD1-U	4099	32.6	126
24CZ-LD5-40SE-UNV-L850-CD1-U	4434	32.6	136
24CZ-LD5-45SE-UNV-L830-CD1-U	4304	39.9	108
24CZ-LD5-45SE-UNV-L835-CD1-U	4572	39.9	115
24CZ-LD5-45SE-UNV-L840-CD1-U	4663	39.9	117
24CZ-LD5-45SE-UNV-L850-CD1-U	5044	39.9	126
24CZ-LD5-50SE-UNV-L830-CD1-U	4788	46.6	103
24CZ-LD5-50SE-UNV-L835-CD1-U	5086	46.6	109
24CZ-LD5-50SE-UNV-L840-CD1-U	5188	46.6	111
24CZ-LD5-50SE-UNV-L850-CD1-U	5612	46.6	121
24CZ-LD5-55SE-UNV-L830-CD1-U	5216	54.7	95
24CZ-LD5-55SE-UNV-L835-CD1-U	5541	54.7	101
24CZ-LD5-55SE-UNV-L840-CD1-U	5652	54.7	103
24CZ-LD5-55SE-UNV-L850-CD1-U	6114	54.7	112
24CZ-LD5-60SE-UNV-L830-CD1-U	5611	60.0	94
24CZ-LD5-60SE-UNV-L835-CD1-U	5961	60.0	99
24CZ-LD5-60SE-UNV-L840-CD1-U	6080	60.0	101
24CZ-LD5-60SE-UNV-L850-CD1-U	6577	60.0	110
24CZ-LD5-65SE-UNV-L830-CD1-U	6154	59.6	103
24CZ-LD5-65SE-UNV-L835-CD1-U	6537	59.6	110
24CZ-LD5-65SE-UNV-L840-CD1-U	6668	59.6	112
24CZ-LD5-65SE-UNV-L850-CD1-U	7213	59.6	121

Energy and Performance Data

Catalog Logic (Smooth Lens)	Delivered Lumens	Watts	Efficacy (lm/W)
24CZ-LD5-30-S-UNV-L830-CD1-U	2890	21.6	134
24CZ-LD5-30-S-UNV-L835-CD1-U	3070	21.6	142
24CZ-LD5-30-S-UNV-L840-CD1-U	3132	21.6	145
24CZ-LD5-30-S-UNV-L850-CD1-U	3387	21.6	157
24CZ-LD5-35-S-UNV-L830-CD1-U	3355	25.3	132
24CZ-LD5-35-S-UNV-L835-CD1-U	3564	25.3	141
24CZ-LD5-35-S-UNV-L840-CD1-U	3635	25.3	144
24CZ-LD5-35-S-UNV-L850-CD1-U	3932	25.3	155
24CZ-LD5-40-S-UNV-L830-CD1-U	3806	29.0	131
24CZ-LD5-40-S-UNV-L835-CD1-U	4043	29.0	139
24CZ-LD5-40-S-UNV-L840-CD1-U	4124	29.0	142
24CZ-LD5-40-S-UNV-L850-CD1-U	4461	29.0	154
24CZ-LD5-45-S-UNV-L830-CD1-U	4291	35.7	120
24CZ-LD5-45-S-UNV-L835-CD1-U	4558	35.7	128
24CZ-LD5-45-S-UNV-L840-CD1-U	4650	35.7	130
24CZ-LD5-45-S-UNV-L850-CD1-U	5029	35.7	141
24CZ-LD5-50-S-UNV-L830-CD1-U	4789	40.7	118
24CZ-LD5-50-S-UNV-L835-CD1-U	5088	40.7	125
24CZ-LD5-50-S-UNV-L840-CD1-U	5190	40.7	128
24CZ-LD5-50-S-UNV-L850-CD1-U	5614	40.7	138
24CZ-LD5-55-S-UNV-L830-CD1-U	5285	45.8	115
24CZ-LD5-55-S-UNV-L835-CD1-U	5614	45.8	123
24CZ-LD5-55-S-UNV-L840-CD1-U	5726	45.8	125
24CZ-LD5-55-S-UNV-L850-CD1-U	6194	45.8	135
24CZ-LD5-60-S-UNV-L830-CD1-U	5856	52.2	112
24CZ-LD5-60-S-UNV-L835-CD1-U	6221	52.2	119
24CZ-LD5-60-S-UNV-L840-CD1-U	6345	52.2	122
24CZ-LD5-60-S-UNV-L850-CD1-U	6864	52.2	132
24CZ-LD5-65-S-UNV-L830-CD1-U	6317	57.6	110
24CZ-LD5-65-S-UNV-L835-CD1-U	6711	57.6	116
24CZ-LD5-65-S-UNV-L840-CD1-U	6845	57.6	119
24CZ-LD5-65-S-UNV-L850-CD1-U	7404	57.6	128
24CZ-LD5-70-S-UNV-L830-CD1-U	6802	64.2	106
24CZ-LD5-70-S-UNV-L835-CD1-U	7226	64.2	113
24CZ-LD5-70-S-UNV-L840-CD1-U	7370	64.2	115
24CZ-LD5-70-S-UNV-L850-CD1-U	7972	64.2	124
24CZ-LD5-75-S-UNV-L830-CD1-U	7193	69.1	104
24CZ-LD5-75-S-UNV-L835-CD1-U	7641	69.1	111
24CZ-LD5-75-S-UNV-L840-CD1-U	7794	69.1	113
24CZ-LD5-75-S-UNV-L850-CD1-U	8430	69.1	122

Standard Efficacy Versions

Catalog Logic (Smooth Lens)	Delivered Lumens	Watts	Efficacy (lm/W)
24CZ-LD5-30SE-S-UNV-L830-CD1-U	2935	23.5	125
24CZ-LD5-30SE-S-UNV-L835-CD1-U	3118	23.5	133
24CZ-LD5-30SE-S-UNV-L840-CD1-U	3181	23.5	135
24CZ-LD5-30SE-S-UNV-L850-CD1-U	3440	23.5	146
24CZ-LD5-35SE-S-UNV-L830-CD1-U	3390	28.6	119
24CZ-LD5-35SE-S-UNV-L835-CD1-U	3602	28.6	126
24CZ-LD5-35SE-S-UNV-L840-CD1-U	3674	28.6	129
24CZ-LD5-35SE-S-UNV-L850-CD1-U	3974	28.6	139
24CZ-LD5-40SE-S-UNV-L830-CD1-U	3859	32.6	119
24CZ-LD5-40SE-S-UNV-L835-CD1-U	4099	32.6	126
24CZ-LD5-40SE-S-UNV-L840-CD1-U	4181	32.6	128
24CZ-LD5-40SE-S-UNV-L850-CD1-U	4523	32.6	139
24CZ-LD5-45SE-S-UNV-L830-CD1-U	4390	39.9	110
24CZ-LD5-45SE-S-UNV-L835-CD1-U	4663	39.9	117
24CZ-LD5-45SE-S-UNV-L840-CD1-U	4757	39.9	119
24CZ-LD5-45SE-S-UNV-L850-CD1-U	5145	39.9	129
24CZ-LD5-50SE-S-UNV-L830-CD1-U	4883	46.6	105
24CZ-LD5-50SE-S-UNV-L835-CD1-U	5188	46.6	111
24CZ-LD5-50SE-S-UNV-L840-CD1-U	5291	46.6	114
24CZ-LD5-50SE-S-UNV-L850-CD1-U	5724	46.6	123
24CZ-LD5-55SE-S-UNV-L830-CD1-U	5320	54.7	97
24CZ-LD5-55SE-S-UNV-L835-CD1-U	5652	54.7	103
24CZ-LD5-55SE-S-UNV-L840-CD1-U	5765	54.7	105
24CZ-LD5-55SE-S-UNV-L850-CD1-U	6236	54.7	114
24CZ-LD5-60SE-S-UNV-L830-CD1-U	5724	60.0	95
24CZ-LD5-60SE-S-UNV-L835-CD1-U	6080	60.0	101
24CZ-LD5-60SE-S-UNV-L840-CD1-U	6202	60.0	103
24CZ-LD5-60SE-S-UNV-L850-CD1-U	6709	60.0	112
24CZ-LD5-65SE-S-UNV-L830-CD1-U	6277	59.6	105
24CZ-LD5-65SE-S-UNV-L835-CD1-U	6668	59.6	112
24CZ-LD5-65SE-S-UNV-L840-CD1-U	6801	59.6	114
24CZ-LD5-65SE-S-UNV-L850-CD1-U	7357	59.6	123

COOPER
Lighting Solutions

Control Systems

- WaveLinx Wireless
- WaveLinx Wired
- WaveLinx Lite
- DLVP
- VividTune

Connected Systems
CLICK HERE

The Cruze SB with Integrated Sensor technology provides automatic energy savings without sacrificing performance. The Cruze SB delivers superior lighting with integrated occupancy and daylighting controls.

For standalone and controlled applications, the WaveLinx Lite integral sensor provides out-of-the-box functionality with no gateways required and factory startup is not needed.

When more connectivity is required, the WaveLinx Wireless sensor meets modern code and utility requirements, delivers energy and cost savings, while enabling buildings to become smart buildings.
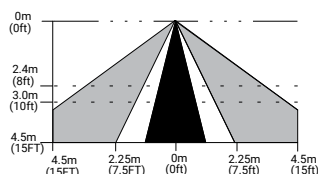
The WaveLinx Wireless Connected Lighting System combined with Trellix provides an open IoT platform and infrastructure that connects intelligent sensors leveraging the real-estate of the physical light fixture to solve higher complexity problems to deliver actionable insights through the aggregation of valuable data.
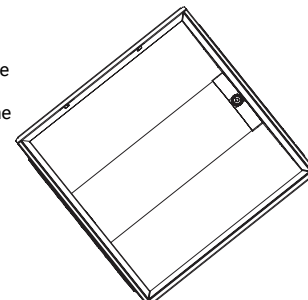
TOP VIEW:
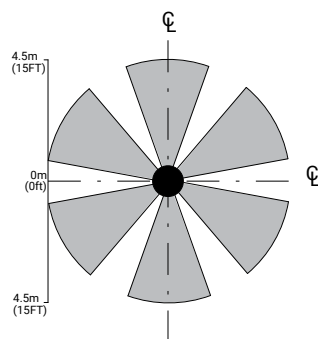
SIDE VIEW:

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.

Systems comparison chart

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

	Standalone	Controlled WaveLinx Lite	Connected WaveLinx Pro	Enterprise Trellix
Occupancy	Yes	Yes	Yes	Yes
Daylighting	Yes	Yes	Yes	Yes
Wallstations	–	Yes	Yes	Yes
Gateways	–	–	1 WAC	300 WACs
Devices (MAX)	–	50 per Area (1400 per site)	200 per WAC2	32,500 per Core Enterprise
Software	–	WaveLinx Lite Mobile App	WaveLinx Pro Mobile App	Trellix Core
Areas	–	28 per Site	50 per WAC2	up to 3,000
Zones	–	16 per Area	16 per Area	up to 9,000
Scheduling	–	–	Local	Global
VividTune™	–	–	Yes	Yes
Plug-Load Control	–	–	Yes	Yes
Low-Voltage Power	–	–	Yes	Yes
Integration	–	–	–	BACnet, API
Dashboards	–	–	–	Energy, Occupancy
Configuration	–	Installer	Technician	Technician / IT

SCALABILITY

devices → areas → floors → buildings

COOPER
Lighting Solutions

VividTune™
color tuning solutions

24 Cruze SB LED with VividTune Tunable White

VividTune tunable white luminaires from Cooper Lighting Solutions deliver high-quality light in a broad range of continuously variable color temperatures and intensities. Create a dynamic environment by adjusting the ambient light warmer or cooler to influence mood, support the task at hand, or create a dramatic ambience. The ability to control correlated color temperature and intensity separately using simple controls is the next evolution of LED lighting for the commercial, educational, healthcare and hospitality space. The unparalleled flexibility and number of available lighting environments enable users to find the right light with tunable white.
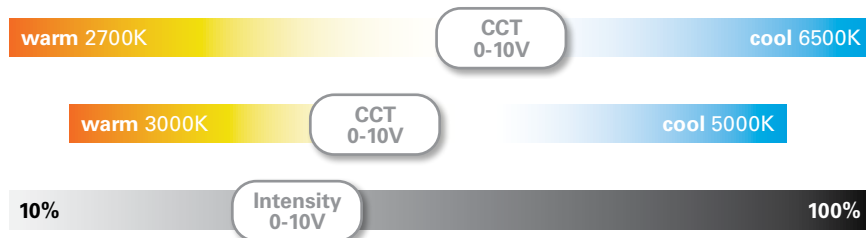

Black Body Locus   ANSI C78.377-2017 Quadrangles

— 3000K - 5000K
— 2700K - 6500K
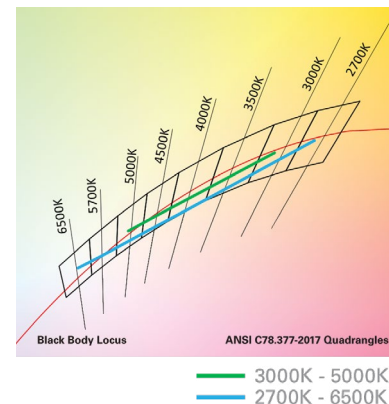
Performance Data*

Tunable White - Lumen Adjustment Factors				
CCT	**3000K-5000K**		**2700K-6500K**	
	80 CRI	**90 CRI**	**80 CRI**	**90 CRI**
2700K	-	-	0.943	0.805
3000K	0.971	0.799	0.969	0.837
3500K	1.027	0.873	1.003	0.879
4000K	1.078	0.943	1.025	0.907
4500K	1.089	0.959	1.043	0.930
5000K	1.089	0.959	1.058	0.949
6500K	-	-	1.073	0.975

2' x 4' Cruze SB LED - Example of Approximate Lumen Calculation			
	Standard Catalog #	**VividTune 80 CRI Catalog #**	**VividTune 90 CRI Catalog #**
CCT Setting	**24CZ-LD5-40-UNV-L835-CD1-U**	**24CZ-LD5-40-UNV-L83050-W2A1-U**	**24CZ-LD5-40-UNV-L93050-W2A1-U**
3000K	-	3849	3169
3500K	3964	4073	3462
4000K	-	4277	3739
4500K	-	4317	3804
5000K	-	4317	3804

Controlling VividTune Tunable White

VividTune luminaires make tunable white more accessible by using simple and familiar controls. From wall dimmers to wireless controls, VividTune tunable white luminaires are compatible with industry standard 0-10V dimming controls. A single 0-10V dimming input is used to control intensity (brightness) while a second 0-10V dimming input is used to adjust CCT. For suggested control configurations, go to www.cooperlighting.com for tunable white application guides.

warm 2700K   **CCT 0-10V**   cool 6500K

warm 3000K   **CCT 0-10V**   cool 5000K

10%   **Intensity 0-10V**   100%

Example of Lumen Adjustment Calculation

24CZ-LD5-40-UNV-L83050-W2A1-U
at 80 CRI tuned to 3500K

Adjusted Lumen = published lm x adjusted lm factor

Adjusted Lumen = 3964 x 1.027

Adjusted Lumen = 4073 lm

* Lumen adjustment factors are for reference and may be different for each product selected. Refer to IES files for actual performance data on each.

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