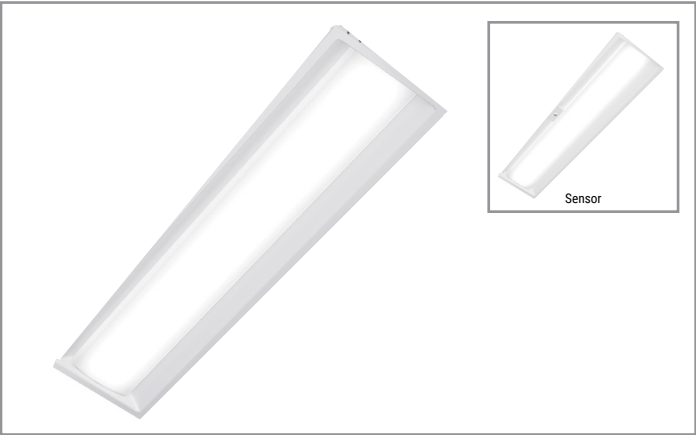


Project		Catalog #		Type	
Prepared by		Notes		Date	



Metalux

Cruze SP

1' x 4' Shallow Plenum Troffer
Service From Below Option with Serviceable Parts

Typical Applications

Office • Education • Healthcare • Hospitality • Retail

Product Certification



Product Features



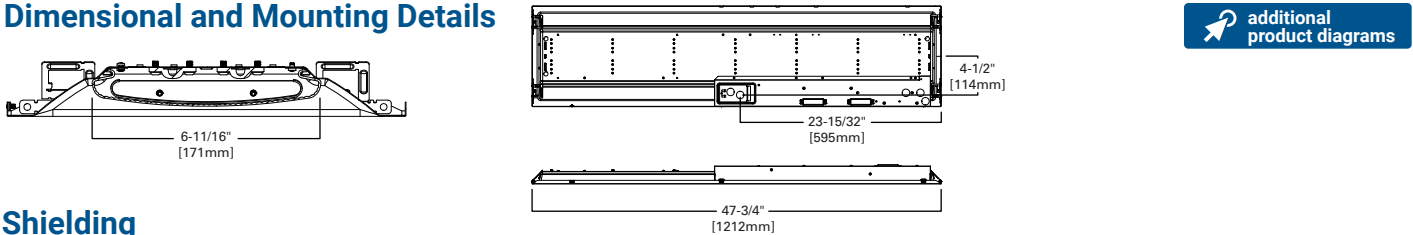
Interactive Menu

- Order Information page 2
- Photometric Data page 7
- Control Solutions page 10
- Product Warranty

Top Product Features

- 5 Selectable lumens (low to high) and 5 selectable CCT (3000K/3500K/4000K/4500K/5000K) in 80 CRI for use in a variety of applications and stock simplicity
- Factory fixed lumen and CCT settings in 80CRI and 90CRI
- Shallow plenum - 2-1/8" depth fits the most challenging spaces
- 0-10V dimming to 1% standard with 120-277V UNV with 120~347V and 347V options
- Fully assembled driver integrated without exposed wires in the plenum
- Emergency, Wavelinx, and Flex options available
- Air return options
- Service from below options with replaceable LED tray and driver for longer service life

Dimensional and Mounting Details



Shielding



See ordering information for more shielding options.

Ceiling Compatibility

G	G	G	Ceiling Type	Trim Type
Grid/Lay-in Standard	Concealed T	Slot Grid	Exposed Grid	Standard
			Concealed T	Standard
			Slot Grid	Standard
			Flange	*

*See Drywall Frame Kit Accessory in Ordering Information Section

Order Information

SAMPLE ORDER NUMBER: **14CZSP-A-L5C5** (1x4 Cruze Shallow Plenum, Air Return, 5 Selectable Lumens / 80CRI, selectable 3000K-3500K-4000K-4500K-5000K, Ribbed Frosted Lens, 120~277, 1% Dim 0-10V Driver)
14CZSP-A-45-L930 (1x4 Cruze Shallow Plenum, Air Return, 4500 Lumens, 90CRI, 3000K CCT, Ribbed Frosted Lens, 120~277, 1% Dim 0-10V Driver)

Rating	Width/Length	Series	Driver Access	Air Return	1' x 4' Selectable Options ⁽⁶⁾	CRI/CCT ⁽⁶⁾	Shielding	Voltage	Driver Type																		
[Blank]=Standard ATW-SW4=Chicago Rated ⁽¹⁾	14=1' x 4'	CZSP=Cruze Shallow Plenum	[Blank]=Standard/ service from top SB=Service from below ^{(2), (3)}	[Blank]=Standard housing A=Air (Vented) ^{(4), (5)}	Lumen Selectable* L5=5 Selectable Lumens L5HO=5 Selectable Lumens, High Output L5HE=5 Selectable Lumens, High Efficacy L5VHE=5 Selectable Lumens, Very High Efficacy + High Output Factory Fixed Lumens** <table><tr><th>Standard</th><th>High Efficacy</th></tr><tr><td>35=3500</td><td>32HE=3200</td></tr><tr><td>42=4200</td><td>37HE=3700</td></tr><tr><td>47=4700</td><td>43HE=4300</td></tr><tr><td>52=5200</td><td>49HE=4900</td></tr><tr><td>58=5800</td><td>54HE=5400</td></tr><tr><td>65=6500</td><td></td></tr><tr><td>70=7000</td><td></td></tr><tr><td>75=7500</td><td></td></tr></table> Very High Efficacy/High Output 55VHE=5500 60VHE=6000 65VHE=6500 70VHE=7000	Standard	High Efficacy	35=3500	32HE=3200	42=4200	37HE=3700	47=4700	43HE=4300	52=5200	49HE=4900	58=5800	54HE=5400	65=6500		70=7000		75=7500		Color Selectable** C5=80CRI, selectable 3000K-3500K-4000K-4500K-5000K C59=90CRI, selectable 3000K-3500K-4000K-4500K-5000K Factory Fixed CCT** L830=80CRI, 3000K L835=80CRI, 3500K L840=80CRI, 4000K L845=80CRI, 4500K L850=80CRI, 5000K L930=90CRI, 3000K L935=90CRI, 3500K L940=90CRI, 4000K L945=90CRI, 4500K L950=90CRI, 5000K	[Blank]=Ribbed Frosted Lens S=Smooth Frosted Lens	[Blank]=Universal Voltage: 120-277 NUV=120-347V ⁽⁷⁾ 347V=347V	[Blank]=0-10V Driver (1%-100% Dimming)
Standard	High Efficacy																										
35=3500	32HE=3200																										
42=4200	37HE=3700																										
47=4700	43HE=4300																										
52=5200	49HE=4900																										
58=5800	54HE=5400																										
65=6500																											
70=7000																											
75=7500																											
Notes (1) No sensor or installed FLEX options available with ATW-SW4 option.			Notes (2) Service from below models have up to 2-7/8" fixture depth. Reference drawings for specific dimensions. (3) 1x4 Air Vented option must also be access from below.	Notes (4) Air version is intended for air return through plenum. See air return data table for air flow volumes. Air option not available with ATW-SW4. (5) 1x4 Air Vented option must also be access from below.	Notes (6) Selectable Lumen and Selectable CCT must be specified together - selectable example L5C5. Factory Fixed Lumen and CCT must be specified together - example 52-940. (20) 2x2 Selectable High Output L5HO version consists of two LED arrays. 1x4 and 2x4 High Output LHO models consist of one LED array. *Field Selectable switch settings by installer may be locked out with supplied cover screwed over selectable switches, protects lumen and CCT settings OR **Factory preset lumen and CCT.			Notes (7) NUV only available with 2x2 L5HQ, 1x4 L5, and 2x4 L5.																			

Emergency Options ⁽⁸⁾	Flex
[Blank]=No emergency EL7W=7-watt 120V-277V emergency battery pack EL10W=10-watt 120V-277V emergency battery pack EL14W=14-watt 120V-277V emergency battery pack EL10WSD=10W emergency battery pack with self-diagnostic installed ⁽¹⁹⁾ EL14WSD=14W emergency battery pack with self-diagnostic installed ⁽¹⁹⁾ EL10FL=FIRSTLINK Broadcast 10W 120-277V emergency battery pack with self-diagnostics installed ^{(14),(19)} ETRD=Emergency Transfer Relay with dimming control ^{(13),(19)} WNPS=WaveLinX with Normal Power Sensing Beacon ^{(9),(10),(11),(12)} WEM=WaveLinX Enabled UL924 ^{(9),(11),(12)}	[Blank]=No Flex A3/8-2/18G=3/8" Flex with line and common A3/8-4/18GDIM=3/8" Flex with 0-10V Dimming Leads A3/8-5/18GDIM=Flex with 0-10V Dimming leads and Blue for alternate wiring. See below for details.
Notes (8) Emergency driver options are mounted on top of fixture and increase fixture depth. Reference drawings for specific dimensions. (9) Only available as part of a WaveLinX control system; must order with WLS or WPS sensor. (10) WNPS is compatible with ESP-L or ESP-P emergency control devices. (11) Cannot be combined with other emergency, control or relay options. (12) For UL924 compliance, WEM and WNPS luminaires must be installed in the same application space. (13) Used to bypass local control during outage. Must be used in conjunction with UL 1008 device (provided by others). Devices are universal voltage (UNV). 347 not available. (14) EFL10FL test button will be tile mount for configurations with WaveLinX sensors. (19) EL10WSD, EL10FL and ETRD CANNOT be used in service from below.	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 through 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).

Integrated Sensing Systems	Packaging	Accessories (order separately) ⁽¹⁸⁾
[Blank]=No Sensor WLS=WaveLinX LITE Integrated Sensor, Dim and Daylight, Bluetooth, 8'-15' MH ^(B) WPS=WaveLinX PRO Integrated Sensor, Dim and Daylight, ZigBee, 8'-15' MH ^(A) WLN=WaveLinX LITE Integrated Node, Dim and Daylight, Bluetooth ^(B) WPN=WaveLinX PRO Integrated Node, Dim and Daylight, Zigbee ^(A)	[Blank]=Unit Pack PAL=Job Pack, out of carton PALC=Job Pack, in carton	DF-14W-U=1' x 4' Drywall Frame Kit CGTSURF14=1' x 4' Shallow Surface Mount Kit SMK-14-W=1' x 4' Surface Mount Kit
Notes 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) Consult WaveLinX LITE system pages for additional details and compatibility.		Notes (18) Accessories sold separately will be separately analyzed under domestic preference requirements. Consult factory for further information.

Stock is available in the following catalog numbers: **COMING SOON**

Catalog Number	Description	UPC	Selectable CCT	Selectable Lumens	Watts	Voltage	Units/Pallet	Fixture Shipping Weight
14CZSP-L5C5	1x4 Cruze Shallow Plenum, 5 Lumen 5 CCT Selectable	80083484119	3000K~5000K	3400~4600	22~40	120~277	18	4.0 lbs

Product Specifications

Construction

- One-piece steel housing improves troffer design by removing end plate light gaps
- Four auxiliary fixture end suspension points
- Integrated T-Grid clip design for screw installation to the grid where required by code and in "earthquake" zones

Integrated Controls

- Standard with 0-10V, 1% dimming driver
- Integrated WaveLinX options provide wireless individual fixture control and enable code compliance, increased energy savings, grouping of fixtures, and connection to WaveLinX control systems

LED and Light Engine

- Selectable Color temperature choices 3000K, 3500K, 4000K, 4500K and 5000K
- Selectable lumen output up to 8000 lumens, 5 selectable levels at 500 lumen increment
- Fixed CCT color accuracy ≤ 3 -Step MacAdam ellipse (SDCM)
- Selectable CCT color accuracy ≤ 4 -Step MacAdam ellipse (SDCM)
- High output selectable lumens available to 8000 lumens with 5 selectable levels at 500 lumen increment
- Standard efficacy fixtures have 1 LED array, high efficacy 2 LED arrays, very high efficacy 3 LED arrays. **Exception:** 22CZSP-L5HOC5 has 2 LED arrays.
- High output, high efficacy fixtures have 3 LED arrays
- TM21 Life at 60,000 hours up to L88 and calculated L70 exceeds 102,000 hours
- Driver 120-277V Standard with 120-347V and 347V options

Replaceable Components for Service from Below Models

- Service from below models feature replaceable LED trays and LED drivers. Reference [Lighting-Technical Support](#) for specific parts per fixture model.

Emergency Options

- Reference catalog logic for 120-277V integral battery pack options
- Self-diagnostic emergency batteries (NFPA 101 Life Safety Code). Reference Catalog Logic for specific models
- Constant power to the LED system for controlled, predictable discharge
- Integrated test switch/indicator light visible from floor
- Min. 90-minute backup period for code compliance
- Integral emergency transfer relay available for generator equipped power systems

WNPS - WaveLinX Normal Power Sensing

- Normal Power Sensing (NPS) wireless beacon enabled luminaire that signals normal power is present
- Must be ordered with WaveLinX LITE or PRO sensor as part of a WaveLinX control system
- For UL924 compliance, WNPS enabled luminaires with standard product and compatible emergency control devices (ESP-P/ESP-L) must be installed in same application space

WEM - WaveLinX UL924 Emergency Sensor

- Emergency control devices (ESP-P/ESP-L) not required when WEM and WNPS luminaires are installed in the same application space
- For UL924 compliance, order WEM and WNPS luminaires in the same application space
- WEM must be ordered with WLS or WPS sensor as part of a WaveLinX control system

Shielding

- Ribbed polycarbonate frosted lens standard
- Optional smooth polycarbonate frosted lens (S)
- Replacement lenses available, contact factory
- Lens is polycarbonate 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
- UL924 luminaire listing available, see Emergency Options
- 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

Warranty

- Five-year limited warranty standard. Optional ten year limited warranty available.

Finish

- Powder Coat matte white
- 90% reflective, matte white enamel finish
- Full fixture housing painted after fabrication

Energy and Performance Data (1x4 Selectable)

Selectable Catalog Logic: 14CZSP-L5C5

Standard Output, Standard Efficacy, Ribbed Lens, 80 CRI, Standard or Air Return Housings

Default CCT/Lumen Setting: 4000K/MID2

Lumen Setting	CCT	Lumens	Watts	LPW	Glare Performance	
					UGR ⁽¹⁾	Max Luminance ⁽¹⁾
LOW	3000	3373	23.2	145.4	21.2	3866
LOW	3500	3421	22.9	149.4	21.3	3921
LOW	4000	3465	22.6	153.3	21.3	3971
LOW	4500	3488	22.8	153	21.3	3998
LOW	5000	3520	23	153	21.4	4034
MID1	3000	4041	28.5	141.8	21.9	4632
MID1	3500	4098	28.1	145.8	21.9	4697
MID1	4000	4152	27.7	149.9	21.9	4759
MID1	4500	4179	28	149.3	22.0	4790
MID1	5000	4217	28.3	149	22.0	4833
MID2	3000	4543	32.8	138.5	22.3	5207
MID2	3500	4607	32.4	142.2	22.3	5280
MID2	4000	4668	31.9	146.3	22.4	5350
MID2	4500	4698	32.3	145.4	22.4	5385
MID2	5000	4741	32.5	145.9	22.4	5434
MID3	3000	4543	32.8	138.5	22.3	5207
MID3	3500	5097	36.4	140	22.7	5842
MID3	4000	5164	35.9	143.8	22.7	5919
MID3	4500	5197	36.3	143.2	22.7	5957
MID3	5000	5245	36.6	143.3	22.8	6012
HI	3000	5492	41.2	133.3	22.9	6295
HI	3500	5570	40.6	137.2	23.0	6384
HI	4000	5643	40.1	140.7	23.0	6468
HI	4500	5679	40.5	140.2	23.0	6509
HI	5000	5731	40.9	140.1	23.1	6569

Selectable Catalog Logic: 14CZSP-L5HOC5

High Output, Standard Efficacy, Ribbed Lens, 80 CRI, Standard or Air Return Housings

Default CCT/Lumen Setting: 4000K/MID2

Lumen Setting	CCT	Lumens	Watts	LPW	Glare Performance	
					UGR ⁽¹⁾	Max Luminance ⁽¹⁾
LOW	3000	5653	41.3	136.9	23.0	6479
LOW	3500	5733	40.7	140.9	23.1	6571
LOW	4000	5808	40.2	144.5	23.1	6657
LOW	4500	5845	40.6	144	23.1	6699
LOW	5000	5899	41	143.9	23.2	6761
MID1	3000	5990	44.5	134.6	23.2	6866
MID1	3500	6075	43.9	138.4	23.3	6963
MID1	4000	6154	43.3	142.1	23.3	7053
MID1	4500	6194	43.8	141.4	23.3	7099
MID1	5000	6251	44.1	141.7	23.4	7165
MID2	3000	6451	48.8	132.2	23.5	7394
MID2	3500	6542	48.1	136	23.5	7498
MID2	4000	6628	47.5	139.5	23.6	7597
MID2	4500	6671	48	139	23.6	7646
MID2	5000	6732	48.4	139.1	23.6	7716
MID3	3000	6451	48.8	132.2	23.5	7394
MID3	3500	7010	52.7	133	23.8	8035
MID3	4000	7102	52	136.6	23.8	8140
MID3	4500	7147	52.5	136.1	23.8	8192
MID3	5000	7213	53	136.1	23.9	8267
HI	3000	7286	57.2	127.4	23.9	8351
HI	3500	7389	56.4	131	23.9	8469
HI	4000	7486	55.7	134.4	24.0	8580
HI	4500	7534	56.3	133.8	24.0	8635
HI	5000	7603	56.7	134.1	24.0	8714

Notes:

(1) UGR values per CIE 190:2010 with 4H, 8H, Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane.

Luminance measured at 45-90 degrees from nadir.

UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell (UGR < 16, Luminance < 6,000).

UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text (UGR < 19, Luminance < 7,000).

Key

	Meets WELL v2
TEXT	Meets LEED v4.1

Shielding & Housing Option

Lumen Adjustment Factors	
(S) Smooth Frosted Lens	(SB) Service From Below
1.02	1.01

Energy and Performance Data (1x4 Selectable)

Selectable Catalog Logic: 14CZSP-L5HEC5

Standard Output, High Efficacy, Ribbed Lens, 80 CRI, Standard or Air Return Housings

Default CCT/Lumen Setting: 4000K/MID2

Lumen Setting	CCT	Lumens	Watts	LPW	Glare Performance	
					UGR ⁽¹⁾	Max Luminance ⁽¹⁾
LOW	3000	3059	20.7	147.8	20.7	3532
LOW	3500	3102	20.4	152.1	20.7	3582
LOW	4000	3143	20.1	156.4	20.8	3629
LOW	4500	3163	20.4	155	20.8	3652
LOW	5000	3192	20.5	155.7	20.8	3686
MID1	3000	3617	24.7	146.4	21.3	4176
MID1	3500	3668	24.4	150.3	21.3	4235
MID1	4000	3716	24	154.8	21.4	4291
MID1	4500	3740	24.3	153.9	21.4	4318
MID1	5000	3774	24.5	154	21.4	4358
MID2	3000	4205	28.9	145.5	21.8	4855
MID2	3500	4265	28.5	149.6	21.8	4924
MID2	4000	4320	28.1	153.7	21.9	4988
MID2	4500	4348	28.4	153.1	21.9	5020
MID2	5000	4388	28.7	152.9	21.9	5066
MID3	3000	4205	28.9	145.5	21.8	4855
MID3	3500	4821	32.7	147.4	22.3	5566
MID3	4000	4884	32.2	151.7	22.3	5639
MID3	4500	4916	32.6	150.8	22.3	5676
MID3	5000	4961	32.8	151.3	22.4	5728
HI	3000	5288	37.3	141.8	22.6	6106
HI	3500	5363	36.8	145.7	22.6	6192
HI	4000	5433	36.3	149.7	22.7	6273
HI	4500	5468	36.7	149	22.7	6313
HI	5000	5518	37	149.1	22.7	6371

Selectable Catalog Logic: 14CZSP-L5VHEC5

High Output, High Efficacy, Ribbed Lens, 80 CRI, Standard or Air Return Housings

Default CCT/Lumen Setting: 4000K/MID2

Lumen Setting	CCT	Lumens	Watts	LPW	Glare Performance	
					UGR ⁽¹⁾	Max Luminance ⁽¹⁾
LOW	3000	5183	37.5	138.2	22.5	5984
LOW	3500	5257	37	142.1	22.6	6070
LOW	4000	5326	36.5	145.9	22.6	6150
LOW	4500	5360	36.9	145.3	22.6	6189
LOW	5000	5409	37.2	145.4	22.7	6245
MID1	3000	5429	39.6	137.1	22.7	6268
MID1	3500	5506	39.1	140.8	22.7	6357
MID1	4000	5578	38.6	144.5	22.8	6441
MID1	4500	5614	39	143.9	22.8	6482
MID1	5000	5665	39.3	144.1	22.8	6541
MID2	3000	5978	43.9	136.2	23.0	6902
MID2	3500	6063	43.3	140	23.1	7000
MID2	4000	6142	42.7	143.8	23.1	7092
MID2	4500	6182	43.2	143.1	23.1	7138
MID2	5000	6238	43.5	143.4	23.2	7203
MID3	3000	5978	43.9	136.2	23.0	6902
MID3	3500	6477	47.2	137.2	23.3	7479
MID3	4000	6562	46.6	140.8	23.3	7577
MID3	4500	6604	47.1	140.2	23.4	7625
MID3	5000	6665	47.5	140.3	23.4	7696
HI	3000	6838	51.9	131.8	23.5	7895
HI	3500	6935	51.2	135.4	23.5	8007
HI	4000	7026	50.5	139.1	23.6	8112
HI	4500	7071	51.1	138.4	23.6	8164
HI	5000	7136	51.5	138.6	23.6	8239

Notes:

(1) UGR values per CIE 190:2010 with 4H, 8H, Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane.

Luminance measured at 45-90 degrees from nadir.

UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell (UGR < 16, Luminance < 6,000).

UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text (UGR < 19, Luminance < 7,000).

Key

	Meets WELL v2
TEXT	Meets LEED v4.1

Shielding & Housing Option

Lumen Adjustment Factors	
(S) Smooth Frosted Lens	(SB) Service From Below
1.02	1.01

Energy and Performance Data (1x4 Configurable)

Standard Efficacy, Ribbed Lens, 80 CRI, Standard or Air Return Housings

Configurable Catalog Logic	Lumens	Watts	LPW	Glare Performance	
				UGR ⁽¹⁾	Max Luminance ⁽¹⁾
14CZSP-35-L835	3422	23.2	147.5	21.3	3922
14CZSP-42-L835	4100	28.5	143.9	21.9	4699
14CZSP-47-L835	4610	32.8	140.5	22.3	5284
14CZSP-52-L835	5100	36.9	138.2	22.7	5845
14CZSP-58-L835	5736	41.3	138.9	23.1	6574
14CZSP-65-L835	6545	48.8	134.1	23.5	7502
14CZSP-70-L835	7013	53.4	131.3	23.8	8038
14CZSP-75-L835	7393	57.2	129.2	24.0	8474

High Efficacy, Ribbed Lens, 80 CRI, Standard or Air Return Housings

Configurable Catalog Logic	Lumens	Watts	LPW	Glare Performance	
				UGR ⁽¹⁾	Max Luminance ⁽¹⁾
14CZSP-32HE-L835	3104	20.7	150	20.7	3584
14CZSP-37HE-L835	3670	24.7	148.6	21.3	4237
14CZSP-43HE-L835	4267	28.9	147.6	21.8	4927
14CZSP-49HE-L835	4824	33.1	145.7	22.3	5570
14CZSP-54HE-L835	5365	37.3	143.8	22.6	6195

Very High Efficacy, Ribbed Lens, 80 CRI, Standard or Air Return Housings

Configurable Catalog Logic	Lumens	Watts	LPW	Glare Performance	
				UGR ⁽¹⁾	Max Luminance ⁽¹⁾
14CZSP-54VHE-L835	5259	37.5	140.2	22.6	6072
14CZSP-60VHE-L835	6066	43.9	138.2	23.1	7004
14CZSP-65VHE-L835	6480	47.8	135.6	23.3	7482
14CZSP-70VHE-L835	6938	51.9	133.7	23.5	8011

Notes:

(1) UGR values per CIE 190:2010 with 4H, 8H, Reflectance: 70% Ceiling, 50% Wall, 20% Ref. Plane.

Luminance measured at 45-90 degrees from nadir.

UGR and Luminance values that meet WELL v2 L04 requirements for Managing Glare are shown with green highlighted cell (UGR < 16, Luminance < 6,000).

UGR and Luminance values that meet LEED v4.1 requirements for Glare Control are shown with green text (UGR < 19, Luminance < 7,000).

Key

	Meets WELL v2
TEXT	Meets LEED v4.1

Lumen Calculator

CCT Multiplier	CRI	
	80	90
3000	0.99	0.86
3500	1.00	0.86
4000	1.05	0.90
4500	1.05	0.90
5000	1.05	0.90

Shielding & Housing Option

Lumen Adjustment Factors	
(S) Smooth Frosted Lens	(SB) Service From Below
1.02	1.01

Example of Lumen Adjustment Calculation

14CZSP-42-L835
at 90CRI at 3500K

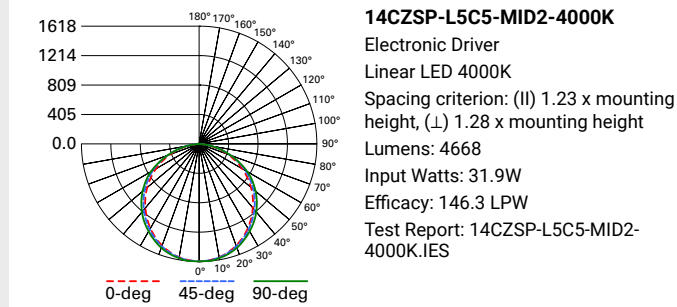
Lumen Adjustment Factor = 0.86

Total Light Output =

4,100 lm x 0.86 = 3,526 lm

Efficacy = $\frac{3,526 \text{ lm}}{28.5 \text{ W}}$ = 123.7 lm/W

Photometric Data

[View IES files](#)


Energy and Performance Data

Lumen Maintenance

Size	TM-21 Lumen Maintenance (60,000 hours) ⁽²⁾	Theoretical L70 (Hours) ⁽³⁾
1x4	88%	>102,000

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.

Load Data (Stock Product)

Thd	6%
Power Factor	0.99
Weight (lbs.)	16
Low Temp. Start	-20°C

Shipping Data

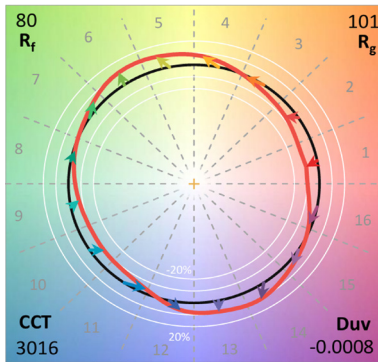
Catalog No.	Wt.	Pallet 49"L x 52"W x 46"H
1' x 4'		

Air Return Volume

Negative Static Pressure (Inches H ₂ O)	Return Air Volume (CFM)
0.05	75
0.1	103
0.2	153
0.25	177
0.3	191
0.45	234

TM-30 DATA FOR 80 CRI, SELECTABLE CCT (3000K SETTING)

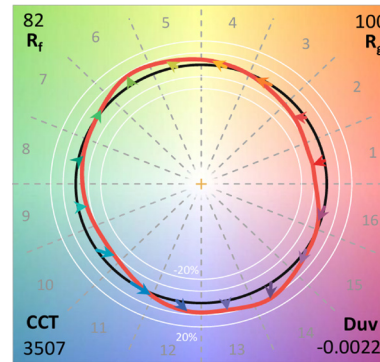
ANSI/IES TM-30-18 Color Rendition Report



Color Data (3000K)		
TM-30-18	R_f	80
	R_g	101
CRI/CIE	R_a	82.1
	$R9$	24.5

TM-30 DATA FOR 80 CRI, SELECTABLE CCT (3500K SETTING)

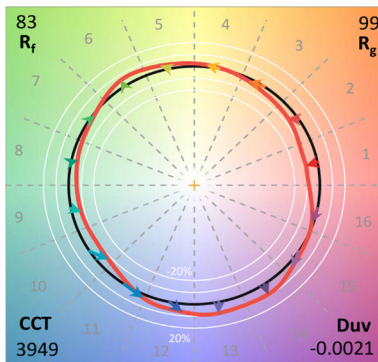
ANSI/IES TM-30-18 Color Rendition Report



Color Data (3500K)		
TM-30-20	R_f	82
	R_g	100
CRI/CIE	R_a	83.9
	$R9$	31.5

TM-30 DATA FOR 80 CRI, SELECTABLE CCT (4000K SETTING)

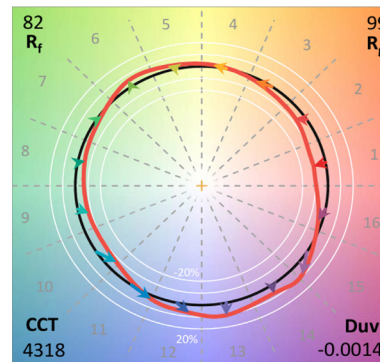
ANSI/IES TM-30-18 Color Rendition Report



Color Data (3000K)		
TM-30-18	R_f	83
	R_g	99
CRI/CIE	R_a	84.3
	$R9$	33.5

TM-30 DATA FOR 80 CRI, SELECTABLE CCT (4500K SETTING)

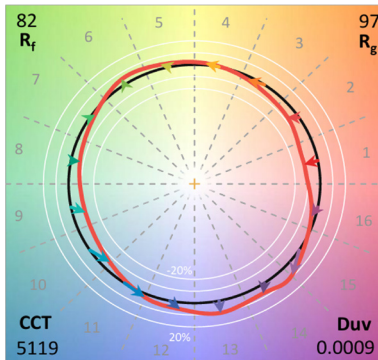
ANSI/IES TM-30-18 Color Rendition Report



Color Data (4500K)		
TM-30-18	R_f	82
	R_g	99
CRI/CIE	R_a	84.1
	$R9$	32.6

TM-30 DATA FOR 80 CRI, SELECTABLE CCT (5000K SETTING)

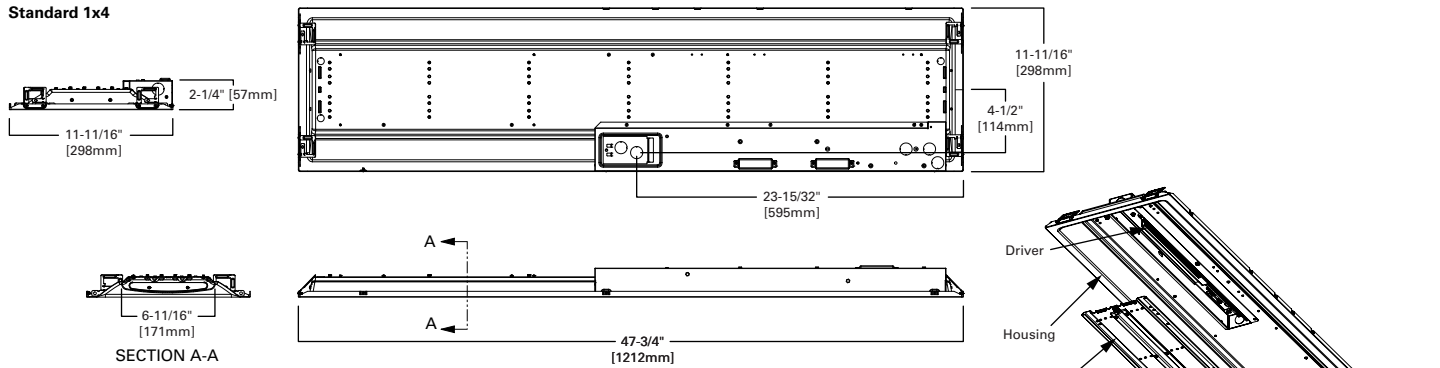
ANSI/IES TM-30-18 Color Rendition Report



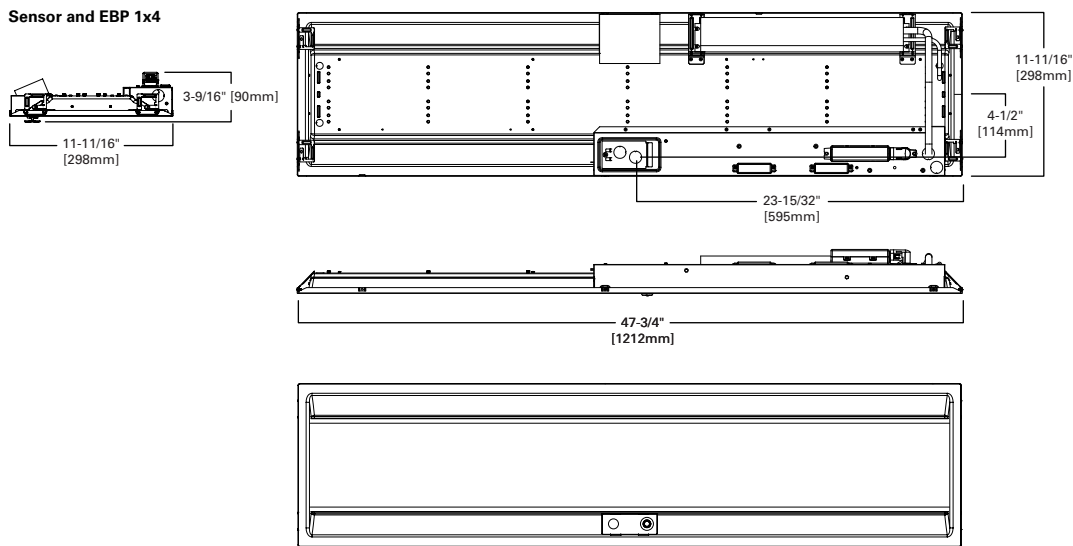
Color Data (5000K)		
TM-30-18	R_f	82
	R_g	97
CRI/CIE	R_a	82.8
	$R9$	24.7

Dimensional and Mounting Details

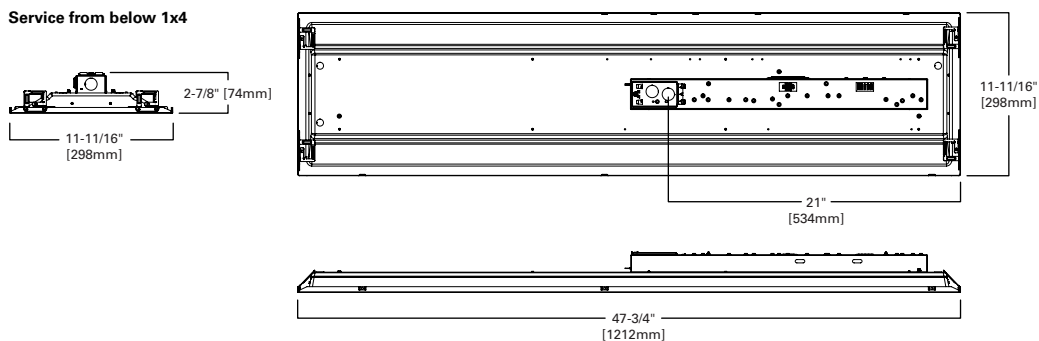
Standard 1x4



Sensor and EBP 1x4



Service from below 1x4



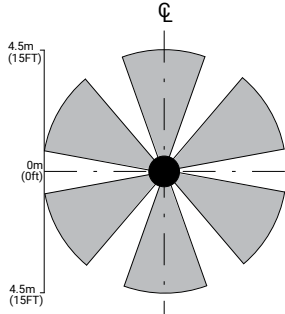
Control Solutions

- WaveLinX LITE wireless
- WaveLinX PRO wireless
- WaveLinX CAT wired
- WaveLinX DALI wired

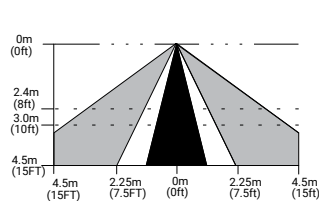


Integrated Sensor Coverage Pattern

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 Node (WPN, WLN) to your space lighting design!

To:

- Keep luminaire aesthetics
- Connect fixtures without space for a sensor, such as downlights
- Connect sealed fixtures without a standard sensor option such as products for clinical space

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

WaveLinX by Cooper Lighting Solutions is a wired and wireless solution for a single room, a parking lot, or an entire campus, helping meet energy codes, reduce energy use, and create healthier environments. As a true hybrid architecture, it enables the seamless integration of DALI, CAT, and PRO technologies and luminaires for unmatched reliability and flexibility, with sensor-enabled luminaires that can also share data with the WaveLinX CORE platform, further improving operations across office, education, healthcare, warehouse, and parking garage applications.



WaveLinX LITE is a Bluetooth wireless digital lighting control solution with out-of-the-box functionality that saves energy and meets energy codes. It's designed for applications that require occupancy-based, daylighting, or manual light control using WaveLinX LITE-enabled luminaires and a mobile app for cost-effective projects.



WaveLinX PRO is a Zigbee wireless solution that offers a rich portfolio of devices, WaveLinX PRO-enabled luminaires, and a mobile app and the WAC (WaveLinX Area Controller). It offers advanced energy savings and deep data integration to improve the occupant experience.



WaveLinX CAT is a scalable CAT5-wired solution for a single room and connected spaces, supporting applications that require occupancy-based, daylighting, or manual light control, with self-commissioning to meet energy codes and maximize energy savings.



WaveLinX DALI is a powerful two-wire DALI-2 solution for connected spaces, combining open-standard devices enabling interoperability with the simplicity of WaveLinX app-based commissioning. It delivers deterministic wired control, granular addressability, and tunable white.

Integrated Controls Options

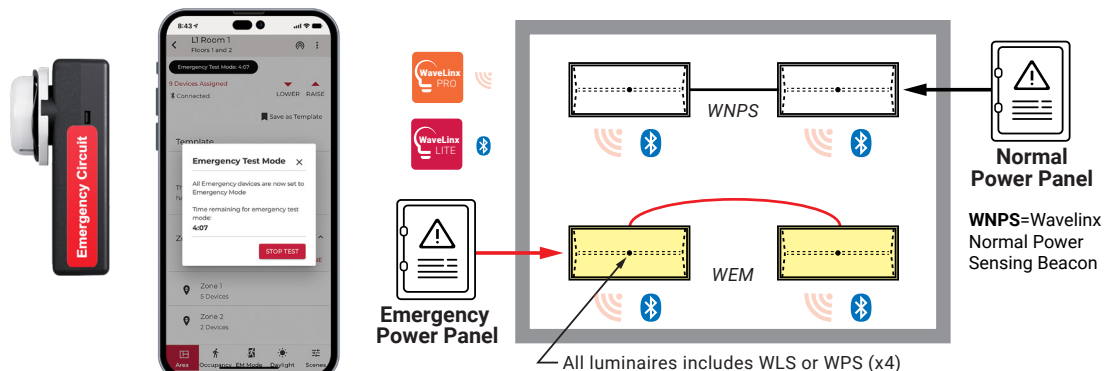
Option	Out of the Box Functionality	Luminaire Level Lighting Control (LLLC)	Automatic Dimming Photocell	Occupancy Sensing	CCT Control*
WLS (WaveLinX LITE Sensor)	X	X	X	X	
WLN (WaveLinX LITE Node)		X			
WPS (WaveLinX PRO Sensor)		X	X	X	X
WPN (WaveLinX PRO Node)		X			X

Note: *WaveLinX utilizes scenes to allow users to change an area's fixtures Correlated Color Temperature (CCT) and intensity using a commissioned wireless wallstation scene controller. To enable CCT adjustments through WaveLinX, include WPS or WPN devices in addition to VividTune or BioUp technologies for integrated fixture control. WPS with CCT controls the intensity of the fixture; an additional, externally mounted control device is needed to control the CCT. See [RSP-P-010-347](#)

The WNPS and WEM (UL924 option) only available with WLS or WPS sensors. Must be specified when ordered. WEM must be associated with a group that includes a normal power sensing device to receive NPS beacon. Learn more about WaveLinX EM [here](#).

WaveLinX EM

The WaveLinX Emergency (WEM) solution offered by WaveLinX wireless (PRO and LITE) makes it easy to design your UL924 certified emergency lighting solution. Fixture-integrated WaveLinX Emergency Modules (WEM) override lighting controls and increases light output to emergency level (100%) until normal power is restored. Needs programming. WaveLinX emergency systems are designed to meet UL 924 standards. Learn more [here](#).



Emergency Lighting

All buildings have to comply with emergency lighting codes to maintain their certificate of occupancy. To enable this, Cooper Lighting Solutions has created multiple offerings to suit the building type and luminaire type.

Options to Enable Emergency (Stand Alone)

	Standard	Self-Diagnostic	FirstLink Connected ETO for Factory-Installed Only 
Metalux Recessed, HALO, APG, Outdoor Medium forward voltage LED arrays usually 20-60V DC	Batteries: EBPLEDL7W, EBPLEDL14W Inverters: INVM-10W-AD	Batteries: EBPLED10WSD, EBPLED7.5WSD Inverters: INVM-25W-ADSD, INVM-50W-ADSD	Batteries: EBPLEDL10SF, EBPLEDL6SF
Metalux Industrial High forward voltage LED arrays usually 90-200V DC	Batteries: EBPLEDL1HV Inverters: INVM-10W-AD, INVM-100W-AD	Inverters: INVM-25W-ADSD, INVM-50W-ADSD	
How is emergency lighting inspection done?	Turn breakers off Walk around the building and collect compliance data.	No need to turn breakers off. Walk around, look up and collect compliance data.	No need to turn breaker off, No walking around. Open the app, push a button, and collect compliance data.

NOTE: 1. For factory installed First-Link EBP, order xSF option. Example: ETO_22CZ2-34HE-UNV-EBP10SF-L835-CD1-U (see Luminaire Order Info)
2. For factory installed standard EBP. Example: 22CZ2-34HE-UNV-EL7W-L835-CD1--U

Connected Emergency Lighting ETO via Factory-Installed Only



Use our Connected Emergency Lighting products (FirstLink) to reduce the cost of compliance.

FirstLink is a complete and fully code compliant connected emergency egress lighting system comprised of FirstLink enabled exit signs, unit equipment, emergency LED drivers and the FirstLink application. The monthly and annual tests can be scheduled to be performed on a cadence. And the FirstLink app easy, instant access to compliance information and your system status. Reports can be easily exported to prove the system compliance status is 100%.



Compliance

- Avoid costly non-compliance fines
- Helps reduce risks and insurance premiums



Convenience

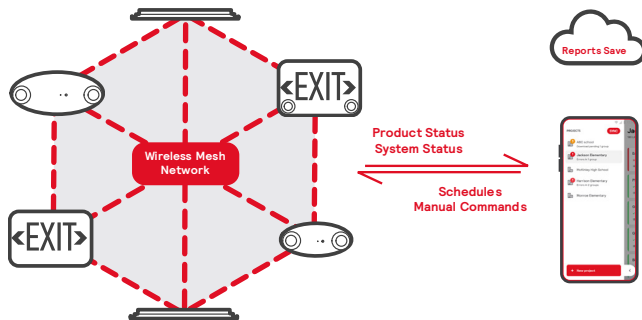
- No ladders
- No documentation
- No searching for reports during an inspection.



Control

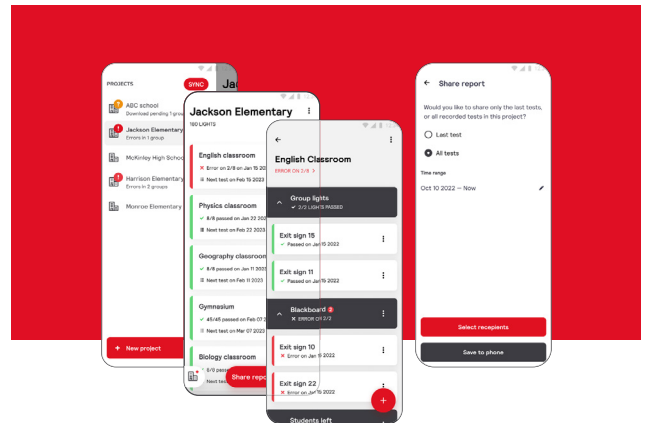
- Scheduling: Adjust the frequency and timing of testing.
- Troubleshooting: Receive complete product status information.
- Customization: Create custom groups and zones.

How does FirstLink work?



FirstLink is a standalone wireless mesh network that connects all devices and ensures a reliable connection through the network, even during the loss of individual devices.

If the app can communicate with just one device, the status of all devices can be read. Once the status is downloaded, the data is uploaded and saved to the cloud.



The FirstLink App

Complete control is in your hands

The FirstLink app is your portal to the FirstLink system. This easy-to-navigate iOS and Android application gives you the ability to configure your system, view and export results, change testing schedules, and more.