

Project		Catalog #		Type	
Prepared by		Notes		Date	



# Metalux

## SkyRidge 22SR LED

2' x 2' Specification Grade Troffer  
LED Module

### Typical Applications

- Commercial Office Spaces • Schools • Hospitals • Retail
- Other Indoor Ambient Applications

### Interactive Menu

- Order Information page 2
- Photometric Data page 3
- Control Solutions page 5
- Connected Systems page 5
- Product Warranty

### Product Certification



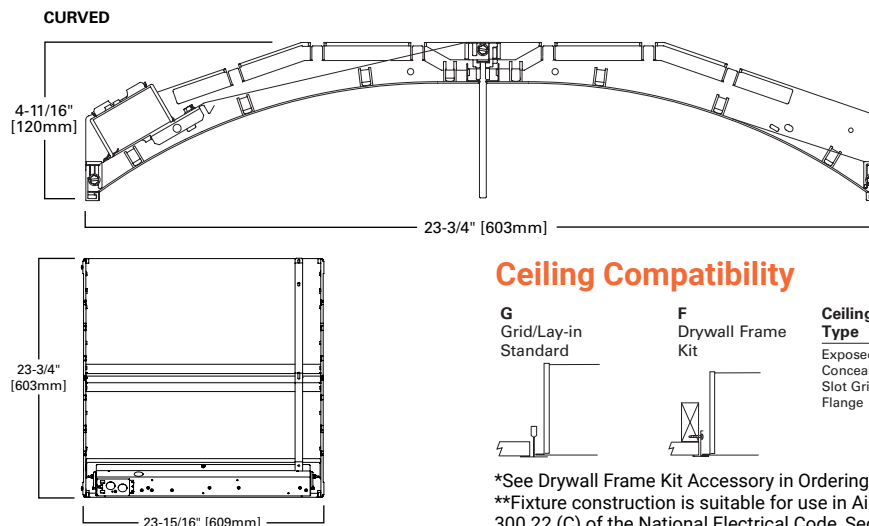
### Product Features



### Top Product Features

- Available in 1' x 2', 1' x 4', 2' x 2' and 2' x 4' recessed versions
- Leverages our patented WaveStream Technology with AccuAim™ optics
- Advanced optical control with optimal illumination
- High performance efficacy up to 146 lumens per watt
- Over 60% energy savings when compared to a fluorescent troffers
- Options to meet Buy American and other domestic preference requirements

### Dimensional and Mounting Details



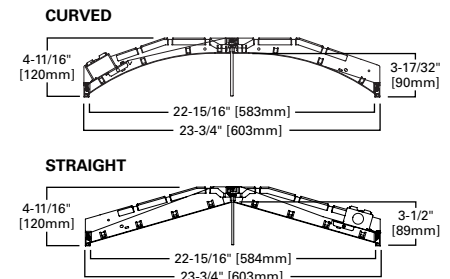
### Ceiling Compatibility

G	F	Ceiling Type	Trim Type
Grid/Lay-in Standard	Drywall Frame Kit	Exposed Grid	G
		Concealed T	G or T
		Slot Grid	G or T
		Flange	*

\*See Drywall Frame Kit Accessory in Ordering Information section.

\*\*Fixture construction is suitable for use in Air-handling and plenum rated spaces in accordance with Section 300.22 (C) of the National Electrical Code, Section 4.3.11.2.6.5 of NFPA 90A and Section 602.2.1.4 of ICC.

### Lamp Configurations



## Order Information

SAMPLE ORDER NUMBER: **22SR-LD2-29-C-UNV-L835-CD1-WPN-U**

Domestic Preferences	Rating	Series	Air	Lamp Type	Lumen Outputs	Reflector	Optics	Voltage
Domestic Preferences <sup>(1)</sup>	Rating	Series <sup>(3)</sup>	Air	Lamp Type	Lumen Outputs	Reflector	Optics	Voltage <sup>(6)</sup>
[Blank]=Standard BAA=Buy American Act TAA=Trade Agreements Act	[Blank]=Standard ATW-SW4=Chicago Rated <sup>(2)</sup>	22SR=2' x 2' SkyRidge Series	[Blank]=Standard A=Air (Vented) <sup>(4)</sup>	LD2=LED 2.0	<b>Stock Lumen Outputs</b> 20=2000 Lumens 29=2900 Lumens  <b>MTO Lumen Outputs</b> 25=2500 Lumens	C=Curved (Standard) S=Straight	[Blank]=Standard	347V=347 Volt UNV=Universal Voltage 120-277V 48V=48 Volt Low-voltage (Class 2) <sup>(6)</sup> 120V=120 Volt <sup>(7)</sup> 277V=277 Volt <sup>(7)</sup>
<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) Chicago rated version does not allow for row mounting.	<b>Notes</b>  (3) DesignLights Consortium® Qualified and classified for DLC Standards, refer to <a href="#">www.designlights.org</a> for details.	<b>Notes</b>  (4) Air version is vented but does not meet air handling requirements. Air version is non-IC. Air version is not available with integrated sensor.					<b>Notes</b>  (6) Products also available in non-US voltages and frequencies for international markets. (7) Must specify voltage as 120V or 277V when ordering GTR2 option. (C) Consult WaveLinx Low-Voltage or DLPV system pages for additional details and compatibility.

Emergency Options	CCT	Flex	Driver Type	Number of Drivers
Emergency Options	CCT	Flex	Driver Type	Number of Drivers
EL7W=7-watt, 120V-277V emergency battery pack installed <sup>(8)</sup> EL14W=14-watt 120V-277V emergency battery pack installed <sup>(8)</sup> ELV7W=Low-voltage system, 7-watt emergency battery pack <sup>(9)</sup> ELV14W=Low-voltage system, 14-watt emergency battery pack <sup>(9)</sup> GTR2=Bodine Generator Transfer Relay <sup>(9),(10)</sup> ETRD=Iota Emergency Transfer Relay with dimming control <sup>(8)</sup>	L830=80CRI, 3000K L835=80CRI, 3500K L840=80CRI, 4000K L850=80CRI, 5000K	A3/8-4/18GDIM=3/8" Flex with 0-10V Dimming Leads Multiple other configurations available. See below for details. A3/8-5/18GDIM=Flex with 0-10V Dimming leads and Blue for alternate wiring. See below for details.	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) <sup>(C)</sup> SD=Step Dimming Driver (50%-100% Dimming) LH=Lutron HiLume (LDE1 series) 1%-100% EcoSystem Driver with Soft-on Fade to Black dimming <sup>(F)</sup> SR=Sensor-ready Driver (1%-100% Dimming)	1=1 Driver
<b>Notes</b>  (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 DLPV system pages for additional details and compatibility.		<b>Flexible Metal Conduit Options</b>  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.  <b>A3/8-4/18GDIM series notes:</b> 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).	<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: (C) Consult WaveLinx Low-Voltage or DLPV 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 <a href="#">www.lutron.com</a>	

Integrated Sensing Systems	SkyTrim	Packaging	Accessories
Integrated Sensing Systems	SkyTrim <sup>(14)</sup>	Packaging	Accessories (order separately) <sup>(15)</sup>
[Blank]=No Sensor WAA=WaveLinx PRO Wireless Integrated Sensor <sup>(11),(A)</sup> WPN=WaveLinx PRO Wireless Node without Sensor <sup>(11),(A)</sup> WAB=WaveLinx LITE Wireless Integrated Sensor <sup>(12),(B)</sup> WLA=Low-voltage Integrated Sensor <sup>(13),(C)</sup>	TB=Tahtian Blue PG=Primary Green SO=Storaro Orange PL=Pearl BR=Belladonna Rose MR=Medium Red ST=Straw	U=Unit Pack PALC=Job Pack, in carton	T3A END E.Q. BRACKET PARTS BAG (Standard with fixture) DF-22W-U=2' x 2' Drywall Frame Kit SK-22-WT=2' x 2' Tall Surface Mount Kit
<b>Notes</b>  (11) WAA sensor and WPN node to be used with CD or W2A driver. Consult factory for WPN with tunable white W2A driver. (12) WAB sensor to be used with CD driver. (13) 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 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. (C) Consult WaveLinx Low-Voltage or DLPV system pages for additional details and compatibility.	<b>Notes</b>  (14) Fixtures using factory installed SkyTrim option are not DLC qualified.		<b>Notes</b>  (15) 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.

## Product Specifications

### Construction

- Shallow 4.75" deep housing extruded aluminum frame
- Injected molded composite end plates
- End plates screws for strength, rigidity and gap eliminations
- End plates accessory grid-lock feature adds safety and convenience
- Four auxiliary fixture end suspension points
- Large access plate for supply connection

### Controls

- 0-10V dimming to 1% standard
- WaveLinX wireless sensor compatible for standalone, controlled, connected, and IoT capability
- Low-voltage sensor and driver compatible for WaveLinX Low-Voltage and DLVP applications
- DALI 2.0, Lutron, and step-dimming available

### Electrical

- LED's available in 3000K, 3500K, 4000K or 5000K with a minimum CRI of 80
- Color accuracy  $\leq 3$ -Step MacAdam ellipse (SDCM)
- Projected life is 100,000 hours at 92% lumen output
- Electronic drivers available for 120-277V applications

### Emergency Battery Pack Option

- Optional 120V-277V integral emergency battery pack available in 7W
- 90-minute backup period for code compliance
- Test switch with laser pointer allows safe testing from floor
- Patented EZ Key prevents accidental discharge during construction
- Emergency/generated transfer option available (see ordering information for details)

### Driver Access

- Drivers can be accessed via plenum

### Finish

- High reflectance baked matte white enamel finish for luminous uniformity

### Optics

- Precision formed optical assembly
- Positively retained high optical grade acrylic lenses
- WaveStream LED technology provides a distribution

### SkyTrim Accessory

- A luminous decorative accent that can be mounted directly on the light guide of a SkyRidge fixture either at the factory or in the field
- Designed for an array of interior applications
- Ideal for spaces where color is necessary to provide visual cues, emphasize brand identity, directional awareness or simply as an artistic expression

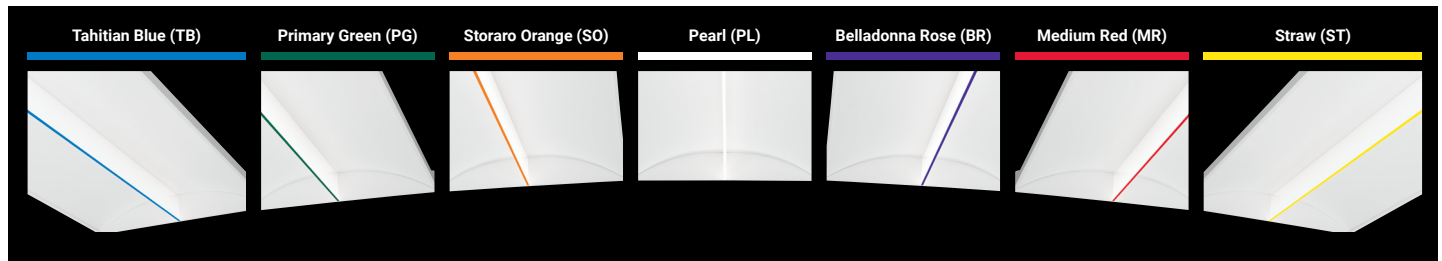
### Compliance

- Components are UL recognized
- cULus listed for 25° C ambient indoor environments
- RoHS compliant
- Complies with IESNA LM-79
- LEDs compliant with LM-80 standards
- DesignLights Consortium® Qualified and classified for DLC Standard (refer to www.designlights.org)

### Warranty

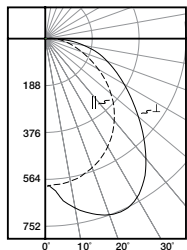
- Five-year warranty. Optional ten year warranty available.

## SkyTrim Options



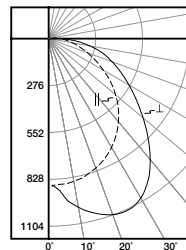
## Photometric Data

[View IES files](#)



### 22SR-LD2-20-CUNV-L835-CD1-U

Electronic Driver  
Linear LED 3500K  
Spacing criterion: (II) 1.22 x mounting height,  
(⊥) 1.6 x mounting height  
Lumens: 2107  
Input Watts: 15.4W  
Efficacy: 136.8 lm/W  
Test Report: 22SR-LD2-20-CUNV-L835-CD1-U.IES



### 22SR-LD2-29-CUNV-L835-CD1-U

Electronic Driver  
Linear LED 3500K  
Spacing criterion: (II) 1.22 x mounting height,  
(⊥) 1.6 x mounting height  
Lumens: 3095  
Input Watts: 23.4W  
Efficacy: 132.3 lm/W  
Test Report: 22SR-LD2-29-CUNV-L835-CD1-U.IES

## Energy and Performance Data by Catalog Number

Stock or MTO	Catalog Logic (Curved)	Delivered Lumens	Watts	Efficacy (LPW)
MTO	22SR-LD2-20-C-UNV-L830-CD1-U	2044	15.4	133
Stock	22SR-LD2-20-C-UNV-L835-CD1-U	2107	15.4	137
Stock	22SR-LD2-20-C-UNV-L840-CD1-U	2149	15.4	140
MTO	22SR-LD2-20-C-UNV-L850-CD1-U	2339	15.4	152
MTO	22SR-LD2-25-C-UNV-L830-CD1-U	2571	19.6	131
MTO	22SR-LD2-25-C-UNV-L835-CD1-U	2651	19.6	135
MTO	22SR-LD2-25-C-UNV-L840-CD1-U	2705	19.6	138
MTO	22SR-LD2-25-C-UNV-L850-CD1-U	2943	19.6	150
MTO	22SR-LD2-29-C-UNV-L830-CD1-U	3003	23.4	128
Stock	22SR-LD2-29-C-UNV-L835-CD1-U	3095	23.4	132
Stock	22SR-LD2-29-C-UNV-L840-CD1-U	3157	23.4	135
MTO	22SR-LD2-29-C-UNV-L850-CD1-U	3436	23.4	147

Stock or MTO	Catalog Logic (Straight)	Delivered Lumens	Watts	Efficacy (LPW)
MTO	22SR-LD2-20-S-UNV-L830-CD1-U	2081	15.4	135
MTO	22SR-LD2-20-S-UNV-L835-CD1-U	2145	15.4	139
MTO	22SR-LD2-20-S-UNV-L840-CD1-U	2188	15.4	142
MTO	22SR-LD2-20-S-UNV-L850-CD1-U	2381	15.4	155
MTO	22SR-LD2-25-S-UNV-L830-CD1-U	2619	19.6	134
MTO	22SR-LD2-25-S-UNV-L835-CD1-U	2700	19.6	138
MTO	22SR-LD2-25-S-UNV-L840-CD1-U	2753	19.6	140
MTO	22SR-LD2-25-S-UNV-L850-CD1-U	2996	19.6	153
MTO	22SR-LD2-29-S-UNV-L830-CD1-U	3057	23.4	131
MTO	22SR-LD2-29-S-UNV-L835-CD1-U	3151	23.4	135
MTO	22SR-LD2-29-S-UNV-L840-CD1-U	3214	23.4	137
MTO	22SR-LD2-29-S-UNV-L850-CD1-U	3498	23.4	149

## Shielding

Lumen Adjustment Factors						
TB	PG	SO	PL	BR	MR	ST
0.640	0.592	0.701	0.868	0.582	0.586	0.932

**Note:** Average values shown. Refer to IES-format photometry for exact performance data.

## Lumen Maintenance

Ambient Temperature	TM-21 Lumen Maintenance (100,000 hours) <sup>(1)</sup>	Theoretical L70 (Hours) <sup>(2)</sup>
25°C	> 92%	> 448,000

**Notes:** (1) Supported by IES TM-21 standards. (2) 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.

## Shipping Data

Catalog No.	Wt.
22SR-LD2-20	12 lbs.
22SR-LD2-29	12 lbs.

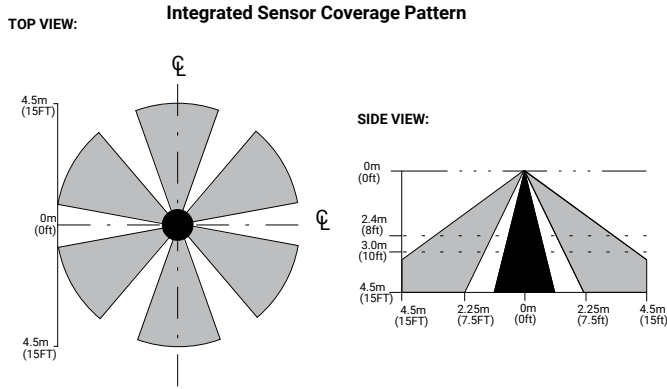
## SkyTrim Field Installation Kits

Color Choice	Kit Catalog Number	Kit Quantity
Tahitian Blue	STK-2-TB-10PK	10
Primary Green	STK-2-PG-10PK	10
Storaro Orange	STK-2-SO-10PK	10
Belladonna Rose	STK-2-BR-10PK	10
Medium Red	STK-2-MR-10PK	10
Pearl	STK-2-PL-10PK	10
Straw	STK-2-ST-10PK	10

**Note:** Chosen color will be matched on acrylic but will appear lighter once applied to lit light guide.

## Control Systems

- WaveLinx PRO Wireless
- WaveLinx LITE Wireless
- WaveLinx Wired



**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.

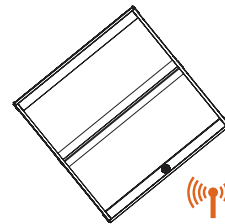
The SkyRidge with WaveLinx offers no-hassle lighting control with multiple luminaire level control solutions.

**WaveLinx PRO** is used for applications where spaces need to be connected to a lighting or building management system and to help building owners improve their operations, building environment, and tenants' experience by leveraging the data generated by the sensors. The WaveLinx PRO devices communicate with each other via the WaveLinx Area Controller which coordinates the data traffic between the devices, lighting apps and CORE platform. The WaveLinx Area Controller also hosts the time clock required if spaces need to be turned on/off at a specific time.

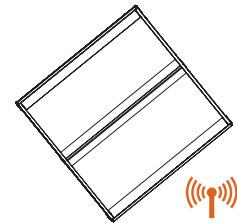
The WaveLinx PRO Sensor offers built-in occupancy and daylighting controls as well as luminaire level control including white tuning while the WaveLinx PRO Node offers luminaire level control and white tuning. If opting for the WaveLinx PRO Node option, a PRO Ceiling Sensor will most likely be needed within the space to control the lights based on occupancy and daylight levels.

**WaveLinx LITE** is used for single spaces where there is no need to manage the spaces remotely or exchange the sensor data with other sub-systems within the building or smart applications.

The WaveLinx LITE Sensor offers built-in occupancy and daylighting controls as well as luminaire level control.



With Integrated WaveLinx Sensor



With Integrated WaveLinx Node

## 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**



**Networked Spaces WaveLinx PRO**



**Enterprise WaveLinx CORE**

<b>Occupancy</b>	Yes	Yes	Yes	Yes
<b>Daylighting</b>	Yes	Yes	Yes	Yes
<b>Wallstations</b>	–	Yes	Yes	Yes
<b>Gateways</b>	–	–	1 WAC	300 WACs
<b>Devices (MAX)</b>	–	50 per Area (1400 per site)	200 per WAC2	32,500 per CORE Enterprise
<b>Software</b>	–	WaveLinx LITE Mobile App	WaveLinx Mobile App	CORE
<b>Areas</b>	–	28 per Site	50 per WAC2	up to 3,000
<b>Zones</b>	–	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
<b>Low-Voltage Power</b>	–	–	Yes	Yes
<b>Integration</b>	–	–	–	BACnet, API
<b>Dashboards</b>	–	–	–	Energy, Occupancy
<b>Configuration</b>	–	Installer	Technician	Technician / IT

## SCALABILITY

