

# SLIM CATHODE LIGHT STRIP

(Models CLS-Slim & HCLS-Slim)

 **US LISTED** Patent 6,454,431



Project: Four Seasons Hotel • Washington, DC

Photo: Eric Long

**P**henomenally energy efficient with incredibly long life, our new CLS-Slim series of cold cathode luminaires are beautifully made, discreetly dimensioned and perfect for indirect coves, direct surface mounting, or as hanging pendants. The most beautiful seamless cold cathode luminaire in the world, manufactured and engineered to be as easy to specify and install as a fluorescent strip.

The CLS-Slim produces arrestingly beautiful shadow-free cove effects and is available in 12 standard lengths and custom sizes for *exact-fit* applications.

### FEATURES & BENEFITS

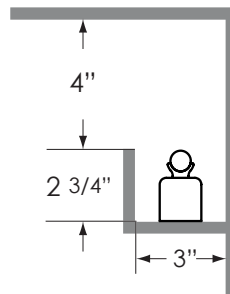
- Illumination is seamless from end to end, with no dark spots or socket shadows
- Luminaires are available in 12 standard sizes, from 2 feet to 7.5 feet (in 6-inch increments) or custom lengths for *exact fit* applications (please contact factory)
- Reliable, ultra long-life high color-rendering T6 cold cathode lamps (up to 100,000 hours of life)
- Dimmable integral 1% electronic ballasts offer inaudible operation and a power factor >.95
- Up to 795 feet of luminaires on one 20-amp circuit @277 volts, or 352 feet of luminaires @120 volts (high-efficiency model HCLS-Slim)
- Lamps snap in and out of luminaires via innovative zero-clearance lamp bases and lampholders, and lock in place
- Very small profile - only 1 5/8" wide and 2 5/8" tall with lamp installed
- Extremely contractor-friendly and beautifully engineered
- Wide color selection, including 11 ultra color-stable white hues
- Available in standard output (up to 492 lumens per foot / CLS-Slim) or high efficiency (up to 328 lumens per foot / HCLS-Slim)



### TYPICAL APPLICATIONS

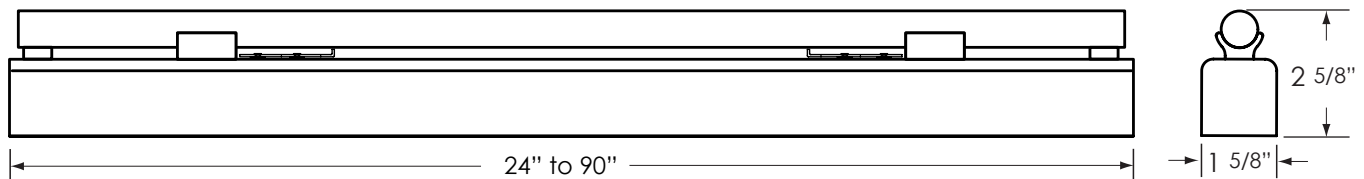
Cove  
Coffer  
Vertical Sconce  
Hanging Pendant  
Suspended Row

### RECOMMENDED COVE DIMENSIONS



### DIMENSIONAL INFORMATION

CLS-Slim luminaires are available in **12 standard lengths, from 2 feet to 7.5 feet, in six-inch increments** and **custom lengths for exact fit applications**. They are available in satin-anodized aluminum or powder-coated white. Other colors are available on special order.



LAMP COLORS, LUMENS & EFFICACIES

WHITE LAMPS: All whites are triphosphor with a CRI of 92					COLORED LAMPS:
Cat. No.	Description	CLS-Slim Lumens/ft	HCLS-Slim Lumens/ft	Efficacy	
19TC	Candelight - 1900°K	287	191	77.2 lumens/watt	Pink White (PW)
23TC	Golden White - 2300°K	420	280	77.2 lumens/watt	Deep Blue (DB)
24TC	Sunrise - 2400°K	466	311	77.2 lumens/watt	Sky Blue (SB)
25TC	Incandescent - 2500°K	453	302	77.2 lumens/watt	Aqua (AQ)
27TC	Warmtone - 2700°K	407	271	77.2 lumens/watt	Turquoise (TQ)
29TC	Warm White - 2900°K	470	313	77.2 lumens/watt	Green (GR)
30TC	Warmlight - 3000°K	480	320	76.2 lumens/watt	Bright Green (BG)
35TC	Soft white - 3500°K	492	328	78.2 lumens/watt	Gold (GD)
42TC	Satin white - 4200°K	476	317	75.3 lumens/watt	Yellow (YL)
63TC	Ice white - 6300°K	462	308	73.2 lumens/watt	Salmon Pink (SP)
83TC	Daylight - 8300°K	458	305	75.4 lumens/watt	Purple (PR)
					Hot Pink (HP)
					Red (RD)
					Orange (OR)

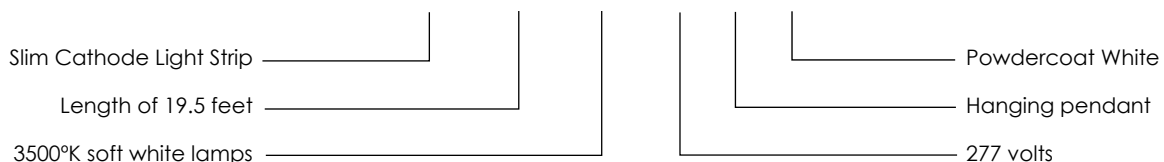
Photometric information: All photometric values provided by LTL (Luminaire Testing Laboratories, Allentown, PA and Cathode Lighting Systems Inc. USA).

ORDERING INFORMATION

Model:	Length:	Lamp color:	Voltage:	Mounting:	Finish Color:
<b>CLS-Slim</b> Slim Cathode Light Strip (standard light output)  <b>HCLS-Slim</b> High-efficiency Slim Cathode Light Strip (reduced light output)	Lengths must be shown in decimal format (12' 6" = <b>12.5</b> ) and in increments of 6 inches (.5 feet) only.	See color chart above for correct catalog numbers.  If color has not been chosen at time of specification, please write: <b>TBD</b>	<b>120</b> 120 volts <b>277</b> 277 volts	<b>C</b> Cove <b>V</b> Vertical Sconce <b>P</b> Hanging Pendant	<b>SA</b> Satin Anodized (standard) <b>WH</b> Powdercoat White <b>BL</b> Powdercoat Black

Example: One straight hanging pendant, 19.5 feet in length. Lamp color is 3500°K soft white. Luminaire will operate at 277 volts.

CLS-Slim - 19.5 - 35TC - 277 - P - WH



### ELECTRICAL INFORMATION

Model	Primary voltage	Primary amps / VA	Watts per foot*	Dimming protocol	Maximum luminaires per 20-amp circuit*	Maximum lamp footage per 20-amp circuit*
CLS-Slim	120 volts 50/60 Hz	.46 amps / 55 VA	7.3	2-wire	34 @ 120 volts	255 feet
CLS-Slim	277 volts 50/60 Hz	.2 amps / 55 VA	7.3	2-wire	80 @ 277 volts	600 feet
HCLS-Slim	120 volts 50/60 Hz	.34 amps / 41 VA	5.5	2-wire	47 @ 120 volts	352 feet
HCLS-Slim	277 volts 50/60 Hz	.15 amps / 42 VA	5.6	2-wire	106 @ 277 volts	795 feet

\*Values are based on all luminaire lengths at 7'6". Actual values may vary depending on the selection of luminaire lengths.

**Dimming:** Reverse-phase electronic low-voltage dimmers (example: Lutron NTELV series) are highly recommended for optimal low-end dimming performance and inaudible ballast operation. Forward phase low-voltage magnetic dimmers may also be utilized, at reduced low-end dimming performance.

### SPECIFICATIONS

**Luminaire:** Luminaires shall be Cathode Lighting Systems model CLS-Slim (Slim Cathode Light Strip) or HCLS-Slim (High-Efficiency Slim Cathode Light Strip), and shall be available in twelve (12) standardized straight lengths from 2 feet to 7.5 feet long. Luminaires shall provide a continuous, uninterrupted line of light when installed as instructed. Luminaires shall be pre-assembled, satin-anodized .050" aluminum (or powder-coated color) with a snap-fit cover and one (1) integral, dimmable electronic ballast.

**Lamps:** Shall be 100,000-hour (HCLS-Slim) or 75,000 hour (CLS-Slim) T6 cold-cathode fluorescent, color as specified. Lamps shall be provided with single-pin bases for zero-clearance snap-in installation and removal from lampholders. Lamps that are hard-wired to the power supply are not acceptable alternatives. Lamps shall be manufactured with butt-sealed ends to provide complete illumination at each lamp end, and shall have provisions to be locked into place, utilizing the luminaire's lamp-locking clips. Manufacturer shall provide independent test lab reports to substantiate lumen output.


























**Integral Ballasts:** Shall be noiseless, electronic 990-volt, instant-start cold cathode, class P thermally protected, and shall automatically de-energize upon removal of lamps from the luminaire. Ballast power factor shall be >.95.

**Dimming:** Luminaires shall be dimmable via 2-wire reverse-phase electronic low-voltage dimming (1%) or 2-wire forward phase 2-wire (low voltage magnetic) dimming system (20% dimming). Reverse phase dimming is recommended in noise-sensitive environments.

**Approvals:** Luminaire shall be UL and cUL-listed under UL category: IEUZ Fluorescent surface-mounted luminaires.

**Manufacturer:** Shall be Cathode Lighting Systems Inc., Gaithersburg, MD - USA (800) 551-5012.  
Website: [www.CathodeLightingSystems.com](http://www.CathodeLightingSystems.com)

## Lamp Color & Lumen Output Information

	Lamp Color	Kelvin Temperature	Catalog Number	Lumens per foot	
				CLS-Slim	HCLS-Slim
	Candlelight	1900° K	19TC	287	191
	Golden White	2300° K	23TC	420	280
	Sunrise	2400° K	24TC	466	311
	Incandescent	2500° K	25TC	453	302
	Warmtone	2700° K	27TC	407	271
	Warm White	2900° K	29TC	470	313
	Warmlight	3000° K	30TC	480	320
	Soft White	3500° K	35TC	492	328
	Satin White	4200° K	42TC	476	317
	Ice White	6300° K	63TC	462	308
	Day Light	8300° K	83TC	458	305
	Pink White	N/A	PW	302	201
	Deep Blue	N/A	DB	351	234
	Sky Blue	N/A	SB	428	285
	Aqua	N/A	AQ	402	268
	Turquoise	N/A	TQ	495	330
	Green	N/A	GR	479	319
	Bright Green	N/A	BG	503	335
	Gold	N/A	GD	254	169
	Yellow	N/A	YL	273	182
	Salmon Pink	N/A	SP	279	186
	Purple	N/A	PR	251	167
	Hot Pink	N/A	HP	276	184
	Red	N/A	RD	120	80
	Orange	N/A	OR	201	134

Photometric information: All photometric values provided by LTL (Luminaire Testing Laboratories, Allentown, PA) and Cathode Lighting Systems Incorporated, USA.