# tempo architectural

PROJECT:			
TYPF:			

**C3S** 

SERPENTINE LED LINEAR ACCENT LIGHTING, LOW-POWER REMOTE POWER SYSTEM



#### **APPLICATION**

C3S LED linear lighting produces uniform illumination designed to accent and highlight small spaces featuring curves and corners, such as small coves, under cabinets or millwork. The 3" articulating modules have multi-directional flexibility to provide seamless illumination along even the most intricate structures. Designed with modular CLiP® (Configurable Lighting Platform), C3S provides options to suit multiple application requirements. The serpentine C3S may be connected to Tempo's rigid C3R providing an elegant solution for combined curved and straight-run applications.

#### CONSTRUCTION

- Designed with non-ferrous components and mounting brackets. Meets MRI room requirements
- Section lengths of 4 foot & 1 foot. Join sections and create continuous runs from one power supply.
- Easily replaceable LED arrays
- Self-adhesive, flexible mounting track required for permanent installation
- · Quick wire connectors to join sections.
- · CSA damp location listed

#### **OPTICS / LENS / DIFFUSER**

- Clear or Frosted low-profile convex lens (120° x 120°)

# POWER SYSTEM

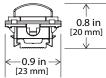
- Utilizes remote, Class II low voltage 12Volt or 24Volt Power Supply. Power supplies must be installed in an approved enclosure (by others) in close proximity to luminaire. Consult factory for guidance.
- Triac dimming to 1%
   0-10V dimming to under 10%
   DMX/RDM dimming to 1%
   Non-dimming also available

#### **PERFORMANCE**

- CLiP™ Configurable Lighting Platform module spacing options of 1" & 3" for specific applications or to reduce total watts per foot. (see pg. 5)
- Light output ranges from 220 to 320 lm/ft (nominal) based on Watts/ft selection
- Dense Pack (DP) LED spacing (3.0W/ft only) places more LED's closer together in each 3" module for high uniformity illumination.
- Operating temperature range of -20°C to 50°C
- Power Supply Total Harmonic Distortion <20%, Power Factor >0.9

#### LIGHT CHARACTERISTICS

- Available in 1600K, 2000K, 2200K, 2700K, 3000K, 3500K, 4000K, 5000K plus Red, Green, Blue and Amber
- Typical CRI of 80+, 90+ CRI option available with 2700K, 3000K and 3500K selection
- LED's are selected and placed on the printed circuit boards via Tempo Industries' UniBin™ process which ensures consistent hue and color within the entire run. Color variations are held to a minimum, within a 2-step MacAdam ellipse.





#### WARRANTY

Tempo provides a 5-year limited warranty.

## 86,000 HOURS L85 LUMEN MAINTENANCE

LED Luminaires will reach 85% of initial lumen output at or beyond 86,000 hours at 25°C.







#### Micro-Maintainable

Components, such as LED boards and lenses, can be easily replaced if necessary for increased product sustainability.









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### MAXIMUM RUN LENGTHS 12V MODEL

12V Driver	Module Spacing*	Watts/ft	Max Distance
	0" (Standard)	2.0	30ft
60W	1"	1.5	40ft
	3"	1.0	60ft
	0" (Standard)	2.0	20ft
40W	1"	1.5 24ft	
	3"	1.0	40ft

## MAXIMUM RUN LENGTHS 24V MODEL

24V Driver	Module Spacing*	Watts/ft	Max Distance
	0" (Standard)	3.0	30ft
100W	1"	2.2	40ft
	3"	1.5	65ft
	0" (Standard)	3.0	18ft
60W	1"	2.2	24ft
	3″	1.5	40ft
	0" (Standard)	3.0	12ft
40W	1"	2.2	16ft
	3″	1.5	26ft

# PERFORMANCE SUMMARY

All data nominal. 3500K test data shown.

Watts/ft	2.0	3.0
Lumens/ft	220	320
Lumens/Watt	110	107

Static Colors

Watts/ft	2.0	3.0
RED Lumens/ft	49	83
RED Lumens/Watt	24	28
GREEN Lumens/ft	164	227
GREEN Lumens/Watt	82	75
BLUE Lumens/ft	40	63
BLUE Lumens/Watt	20	21
AMBER Lumens/ft	87	145
AMBER Lumens/Watt	44	48

# **DRIVER REMOTE DISTANCE**

	Wire Gauge	Maximum Lead Length
	18 AWG	10 ft (3m)
12V Driver	16 AWG	15 ft (4.5m)
	14 AWG*	25 ft (7.5m)
	12 AWG*	40 ft (12m)

	Wire Gauge	Maximum Lead Length
	18 AWG	15 ft (4.5m)
24V Driver	16 AWG	25 ft (7.5m)
	14 AWG*	40 ft (12m)
	12 AWG*	60 ft (18m)

<sup>\*</sup>Terminal blocks on the drivers accept 18AWG or 16AWG wire. To use wire gauges larger than 16AWG connect up to 3 ft of 18AWG or 16AWG, then connect 14AWG or 12AWG with UL approved wire nuts up to the maximum lead length in the above tables.

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#### ORDERING INFORMATION

Example: C3R-FL-0-3-27LG-4

4ft, C3R, Frosted Lens, 3 W/Ft, 24V, 2700K, Light Gray

C3	S											LG		
Series	Platform	-	Optic/Lens/Diffuser	-	Module Spacing <sup>1</sup>	-	W	atts/Foot	-	Color Temp	F	Finish	-	Fixture Length
С3	<b>S</b> Serpentine		CL Clear Lens (120° x 120°) FL Frosted Lens (120° x 120°)		<b>0</b> 0"(Std)		2	2.0 W/ft (12V) 3.0 W/ft (24V)		16 1600K 20 2000K 22 2200K 27 2700K	L	<b>LG</b> Light Gray		1 1 foot 4 4 foot
					<b>1</b> 1"		15 22			30 3000K 35 3500K 40 4000K 50 5000K RD Red (~625nm)				<b>(a)</b>
					<b>3</b> 3"		1 15	1.0W/ft (12V) 1.5W/ft (24V)		GR Green (~ 545nm) BL Blue (~ 470nm) AM Amber (~ 590nm)				
										<b>27H</b> 2700K High CRI (90+) <b>30H</b> 3000K High CRI (90+) <b>35H</b> 3500K High CRI (90+)	•			

NOTES:

(1) C3S features 3" modules with zero spacing in between as standard. Module Spacing options of 1" & 3" in between each 3" module is available to reduce wattage per foot and reduce costs. See dimensional information for more details on Module Spacing.

• High CRI required to comply with 2016 & 2019 Title 24 JA8 High Efficacy Lighting.

Consult factory for information on tailored C3R fixture lengths.





Frosted Lens (-FL)

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# SYSTEM INTEGRATION ACCESSORIES

POWER	POWER SUPPLIES - 12V Output for 2W/ft Standard LED Spacing Require approved enclosure (by others) in close proximity to luminaire. See chart on page 2						
	PWR-120-EL-040-T	120V AC Input, 12V DC Output, 40W, Triac Dimming (dim to 1%) Lutron Hi-lume 1% 2-wire LED driver, 120V forward phase - LTEA2W; 3.0"W x 1.0"H x 4.9"L	LUTRON ORM ADVINITAGE				
	PWR-UNV-EL-060	120-277V AC Input, 12V DC Output, 60W, Non-Dimming; 1.7"W x 1.3" H x 8.4" L					
	PWR-UNV-EL-060-Z	120-277V AC Input, 12V DC Output, 60W, 0-10V Dimming (dim to under 10%); 1.7"W x 1.3"H x 8.4"L					

POWER SUPPLIES - 24V Output fo	or 3W/ft Dense Pack LED Spacing Require approved enclosure (by others) in close proximity to luminaire. See chart on page 2			
PWR-120-EM-040-T	120V AC Input, 24V DC Output, 40W, Triac Dimming (dim to 1%) Lutron Hi-lume 1% 2-wire LED driver, 120V forward phase - LTEA2W; 3.0"W x 1.0"H x 4.9"L			
PWR-120-EM-040-T1 120V AC Input, 24V DC Output, 40W, Triac Dimming (dim to 1%) Lutron Hi-lume 1% 2-wire LED driver, 120V forward phase - LTEA2W; 1.2"W x 1.0"H x 14.25"L				
PWR-120-EM-100-T         120V AC Input, 24V DC Output, 100W, Phase Dimming Triac & ELV; 3.0"W x 1.7"H x 9.9"L				
PWR-UNV-EM-100-T-JB	120V AC Input, 24V DC Output, 100W, Phase Dimming Triac & ELV, Integral AC/DC J-Box; 3"W x 1.7"H x 14"L			
PWR-UNV-EM-96-DMX	120-277V AC Input, 24V DC Output, 96W, DMX Dimming; 2.5"W x 1.25" H x 9.6" L			
PWR-UNV-EM-060	120-277V AC Input, 24V DC Output, 60W, Non-Dimming; 1.7"W x 1.2"H x 9.5"L			
<b>PWR-UNV-EM-100</b> 120-277V AC Input, 24V DC Output, 100W, Non-Dimming; 1.7"W x 1.2" H x 9.5" L				
PWR-UNV-EM-100-Z	120-277V AC Input, 24V DC Output, 100W, 0-10V Dimming (dim to under 10%); 1.9"W x 1.3" H x 9.2" L			
PWR-UNV-EM-100-Z-JB Plenum Rated J-Box Driver, 120-277V AC Input, 24V DC Output, 100W, 0-10V Dimming (dim to under 10%); 2.5"W x 1.7"H x				

SI	SURGE SUPPRESSION DEVICE A Tempo furnished surge suppression device must be installed on each supplying branch circuit to comply with Tempo's 5-year warranty terms						
SSD-120 120V Branch Circuit; 2.9"W x 1.75" H x 3.3" L							
SSD-277 277V Branch Circuit; 2.9"W x 1.75" H x 3.3" L		277V Branch Circuit; 2.9"W x 1.75" H x 3.3" L					

POWER FEED CABLES Additional lengths available, contact factory					
PFC3-F-12-36 Female Connector, 12V for 2W/ft, Standard LED spacing, 36 inches					
PFC3-F-24-36 Female Connector, 24V, for 3W/ft, Dense Pack LED spacing, 36 inches		Female Connector, 24V, for 3W/ft, Dense Pack LED spacing, 36 inches			

JUN	UMPER FEED CABLES Additional lengths available, contact factory		
	JFC3-MF-12-18	Male/Female, 12V, 18 inches	
	JFC3-MF-24-18	Male/Female, 24V, 18 inches	

Ν	10UNT	TING HARDWARE		
		C3S-TK-FX	Self-adhesive rubber Mounting Track, 15 feet	
		C3S-TK	Non-adhesive rubber Mounting Track, 15 feet	

### IMPORTANT MOUNTING NOTES

Self-adhesive tape on bottom of C3S-TK-FX track is not intended to be the only means to secure track to substrate; it is an aide to allow the track to be aligned during installation. Tempo recommends using a mechanical fastener (small screws, staples, pin nails, etc.) to permanently secure the mounting track prior to attaching fixtures. Care must be taken to avoid disfiguring the track where the fixture clips are located, otherwise the fixture clips may not properly attach to track.

Alternative mounting method is with C3S-TK mounting track which is intended to be attached to substrate with small bead of general RTV silicone glue along length of track.

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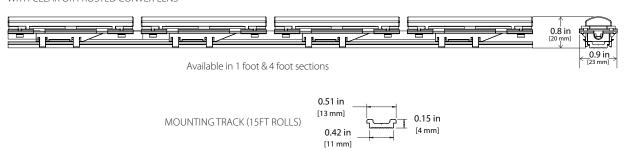
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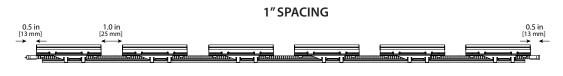
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### DIMENSIONAL INFORMATION

WITH CLEAR OR FROSTED CONVEX LENS



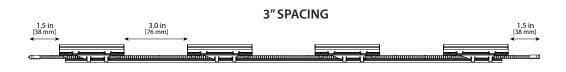
#### DIMENSIONAL & PERFORMANCE INFORMATION WITH EXTENDED MODULE SPACING



#### **PERFORMANCE**

All data nominal. 3500K test data

Model	12V	24V
Lumens/ft	165	240
Watts/ft	1.5	2.2



## **PERFORMANCE**

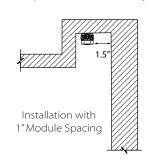
All data nominal. 3500K test data

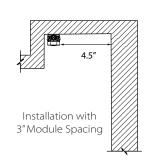
Model	12V	24V
Lumens/ft	110	160
Watts/ft	1.0	1.5

Extended module spacing saves on total wattage and costs. Recommended for applications that allow for extra space between linear runs and the wall or background surface. However, every application is different - please consult factory for more information.

Generally a 1:1.5 ratio is recommended to prevent scalloping effects:

- 1" spacing requires runs to be minimum 1.5" from wall
- 3" spacing requires runs to be minimum 4.5" from wall





Tempo Lighting reserves the right to change materials or modify the design of its product without notification as part of the company's continuing product improvement program. Please consult **www.tempollc.com** for the most up-to-date specifications and technical data.