



# TCAT

LED TWIN CONTEMPORARY  
ARCHITECTURAL TROFFER

Columbia  
LIGHTING

Current 

# TCAT

## LED TWIN CONTEMPORARY ARCHITECTURAL TROFFER

TCAT LED Twin Contemporary Architectural Luminaire harmoniously blends flat and curved geometrics to produce a sleek, subtle aesthetic that effortlessly complements a wide range of architectural environments.

### Controls Technology

TCAT luminaires offer SpectraSync™, NX Lighting Controls and SpectraSAFE™ technology in a clean unobtrusive manner. Optional sensors and wired or wireless controls further increase energy savings.



### Emergency Solutions

CSA certified to UL 924 standards with battery pack or DTS (Dimming Bypass Module) options.



### DLC®

DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations — please refer to the DLC website for specific product qualifications at [www.designlights.org](http://www.designlights.org)

### Lens

High efficiency acrylic lenses feature custom formulation for high performance without pixelation

### Options

Wide choice of sizes and lumen packages to maximize design flexibility

### Finish

Architectural matte white finish standard

### Easy Installation

Electrical components are fully accessible from below the ceiling for ease of maintenance and future upgradeability

### Sizes

Available in 1x4, 2x2 and 2x4 imperial (US standard) and metric sizes



Seamless integration of integral sensor adds controls flexibility



Ceiling view of 2'x2' (or 600mm x 600mm)



# A Full Family of Architectural Sizes

To ensure a consistent look, TCAT is offered in three size configurations. Each configuration is available in imperial sizing (US standard) and metric sizing to meet your needs in domestic or international markets.

## 1' x 4' or 300mm x 1200mm

This sleek shape integrates seamlessly into architectural designs.

### 1' x 4' or 312 Product Availability

Lumen Package	Nominal Lumens	Watts	Efficacy (LPW)
XW	2450-2625	21	119-128
VW	3175-3625	28	113-128
MW	3475-3950	31	113-128
LW	4150-4750	35	120-137
ML	4725-5375	40	118-134
HL	5375-6125	44	123-140
VL	6700-7650	58	117-133

## 2' x 2' or 600mm x 600mm

Add quiet elegance to commercial spaces with the simplicity and modularity of this popular form.

### 2' x 2' or 66 Product Availability

Lumen Package	Nominal Lumens	Watts	Efficacy (LPW)
VW	1400-1500	12	117-126
MW	2075-2350	18	118-134
LW	2525-2875	22	117-133
ML	3375-3875	31	110-125
HL	3550-4050	30	119-136
VL	4300-4600	37	116-124

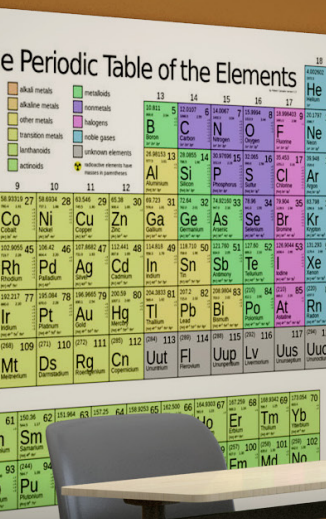
### 2' x 4' or 612 Product Availability

Lumen Package	Nominal Lumens	Watts	Efficacy (LPW)
XW	2475-2650	19	131-140
VW	3150-3575	25	138-144
MW	3550-4050	28	126-143
LW	4150-4725	34	124-141
ML	4700-5350	39	121-138
HL	5350-6100	45	120-137
VL	6875-7825	55	126-143
XL	8300-8925	69	121-130

## 2' x 4' or 600mm x 1200mm

Replace existing luminaires or design for new installations with this appealing, graceful architectural troffer.

NOTE: Nominal lumen range represents 3000K through 5000K. Lumens vary according to color temperatures and other factors. See specific photometric test(s).



# Aesthetics & Performance

Meets a wide range of installation needs while maintaining a consistent luminaire appearance.

## Sleek & Subtle

TCAT blends flat and curved planes to create an interesting visual without being overbearing. This mix also spreads the light over the surface of the luminaire to provide an even illumination with a low contrast ratio.

## Maintainability & Sustainability

The TCAT light engine is accessible from below the ceiling plane for ease of maintenance. The modularity of the system components allow for future upgradability.

## High Performance

With the lumen per watt (LPW) ratios ranging from 110 to 144, TCAT delivers the footcandles required on the project while using a minimum amount of power.

## LED drivers

A wide range of drivers make TCAT flexible and controls friendly. Choose from 0-10V dimming, 0-10V dimming to 1%, Lutron Series 5, Lutron H, fixed output and stepped output.



# Options



Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with two distinct SpectraSync™ Color Tuning Technologies.



## Tunable White

Tunable White offers you the ability to tailor correlated color temperature (CCT) to your personal preference, enhancing task visibility, material and colors and the aesthetics of the space. (Available with 2700K-5000K or 2700K-6500K)



## Scheduled White

Scheduled White creates an environment that mimics the rhythm of natural light or follows an alternative user-defined schedule throughout the day, enhancing an occupant's mood and well-being. (Available with 2700K-5000K or 2700K-6500K)



The TCAT luminaires are available with integrated NX Lighting Controls sensors and standalone modules. NX offers complete, code-compliant lighting controls with occupancy/vacancy detection, individual or multi-zone daylight level (harvesting) dimming, time schedules and native BACnet® building networking built in.



### Commercial Space

- 40'L x 40'W (1600 sq. ft.)
- Overall: 26 fc average, 0.29 LPD

### Artwork

- 8'H x 30' W
- 12 fc average, vertical
- 1.9 Max/Min, vertical

## Performance

### Open Office

- 40'L x 25'W (1000 sq. ft.)
- 32 fc average @2.5' horizontal
- 2.5 Max/Min
- 0.36 LPD
- (8) TCAT24-35HL, 2'x4' units
- 44.6W each, 5524 lumens
- Mounted 10' AFF

### Meeting Area

- 40'L x 15'W (600 sq. ft.)
- 19 fc average @ 2.5' horizontal
- 2.8 Max/Min
- 0.19 LPD
- (3) LCAT22-35VL, 2'x2' units
- 37.3W each, 4400 lumens
- Mounted 11' AFF

TCAT produces comfortable, effective illumination at low power density, with attractive, architectural styling.

NOTE: Rendered using LitePro DLX application software.

# Low Maintenance, Long Life, Reliable

## Long Life LEDs – Low Facility Maintenance Over Time

Tested in accordance with the rigorous standards of IESNA TM-21.

- 60,000 hours rated life with 80% lumen maintenance (L80)

## Replaceable Components with Below-Ceiling Access

TCAT LED boards and drivers are replaceable and accessible from below the ceiling plane for truly sustainable design.

## Snap-Fit Lenses

TCAT's lenses are easy to both remove and install.

## Controls Compatible

Optional occupancy and daylight sensors are available for factory installed controls, or pair TCAT with external controls for enhanced energy savings and code compliance.

## SpectraSync™

Control your space based on the needs of the application, specific activities throughout the day and preferences of the occupants with three distinct SpectraSync™ Color Tuning Technologies.

## NX Lighting Controls

NX Lighting Controls supports indoor and outdoor applications, wired, wireless and hybrid networked NX lighting control deployments, and enables emerging applications such as Current's SpectraSync™ color tuning technology.

## Warranty


Standard with 5 year warranty.

## DLC Qualified

DLC® (DesignLights Consortium) Qualified, with some Premium Qualified configurations — please refer to the DLC website for specific product qualifications at [www.designlights.org](http://www.designlights.org)




## Simple Fluorescent Replacement



Replace (2) 4' T8 lamps with TCAT24 or TCAT14 LW for

**39% energy savings**


per fixture.



Replace (3) 4' T8 lamps with TCAT24 for

**35% energy savings**


per fixture.



Replace (4) 4' T8 lamps with TCAT24 for

**38% energy savings**

per fixture.



Replace 2 U-Bent lamps with TCAT22 for

**48% energy savings**

per fixture.

# Ordering Information

Example: TCAT22–35HLG–ESDU

TCAT	Size	Color Temp	Lumen Output	Ceiling Type
<b>Model</b>	<b>Size</b>	<b>Color Temp</b>	<b>Lumen Output</b>	<b>Ceiling Type</b>
<b>TCAT</b> LED Twin Contemporary Architectural Troffer	<b>14</b> 1' x 4' <b>22</b> 2' x 2' <b>24</b> 2' x 4' <b>312</b> 300mm x 1200mm <b>66</b> 600mm x 600mm <b>612</b> 600mm x 1200mm	<b>30</b> 3000K <b>35</b> 3500K <b>40</b> 4000K <b>50</b> 5000K <b>2750T</b> 2700K-5000K SpectraSync™ Tunable White <sup>1</sup> <b>2765T</b> 2700K-6500K SpectraSync™ Tunable White <sup>1</sup>	<b>XW</b> Extra Low Watt <b>VW</b> Very Low Watt <b>MW</b> Medium Low Watt <b>LW</b> Low Watt <b>ML</b> Medium Lumen <b>HL</b> High Lumen <b>VL</b> Very High Lumen <sup>9</sup> <b>XL</b> Extra High Lumen	<b>G</b> Grid Lay-in <sup>2</sup> <b>SM</b> Surface Mount <sup>10</sup> <b>CM</b> Cable Suspended Mount <sup>3</sup>

Driver	Voltage	Options	Control Options
<b>Driver</b>	<b>Voltage</b>	<b>Options</b>	<b>Control Options</b>
<b>E</b> Fixed Output <sup>11</sup> <b>ED</b> 0-10V Dimming <b>ED1</b> 0-10V 1% Dimming <b>ESD</b> Step Dimming <sup>4,11</sup> <b>LUTH</b> Hi-lume 1% EcoSystem LED driver with Soft-on, Fade-to-Black dimming technology <sup>4,5,11</sup> <b>DALIP</b> DALI Power Bus <sup>6</sup>	<b>U</b> 120V–277V <b>347</b> 347V <sup>12</sup>	<b>ELL14</b> Emergency Battery Pack Installed, 1400 Lumens <sup>4,5</sup> <b>DTS</b> Dimming Bypass Module <sup>7</sup> <b>C388</b> 3-Wire Flex <sup>13</sup> <b>C488</b> 4-Wire Flex <sup>13</sup> <b>C588</b> 5-Wire Flex <sup>13</sup> <b>GLR</b> Fast Blow Fuse <b>EOR</b> End of Row (SM and CM only. Provides end wiring access for continuous row mounting.) <b>INT</b> Intermediate (SM and CM only. Provides ends with wiring access for continuous row mounting.) <b>CP</b> Chicago Plenum <b>SAF</b> SpectraSAFE™ Integrated Surveillance Lighting System <sup>4,8</sup>	<b>NX Networked – Wired</b> <b>NXE</b> NX Wired Dual RJ45 SmartPORTS, without Sensor <sup>11,12,14</sup> <b>NXESM</b> NX Wired Dual RJ45 SmartPORTS and Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming <sup>11,12,14</sup> <b>NXERM</b> NX Wired Dual RJ45 SmartPORTS and Integral NXSMP2-LMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming <b>NX Networked – Wireless</b> <b>NXW</b> NX Networked Wireless Radio Module NXRM2 and Bluetooth Programming, without Sensor <sup>10,11,12,14</sup> <b>NXWSM</b> NX Networked Wireless Enabled Integral NXSMP2-SMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming <sup>10,11,12,14</sup> <b>NXWRM</b> NX Networked Wireless Enabled Integral NXSMP2-LMI PIR Occupancy Sensor with Automatic Dimming Photocell and Bluetooth Programming

### Notes:

- Available with ED driver only. N/A with VL (1x4, 2x4) or XL (2x4) lumen packages. N/A with ELL14 (1x4)
  - For drywall, order G with Flange Kit Accessory
  - Order hanger accessories separately
  - Not available in 347V
  - For compatibility with Dual-Lite LiteGear® inverters, contact representative
  - DALIP only available when LVS, LVR or ODPG control options are selected
  - For emergency circuit control loads including sensors and wireless systems CSA certified to UL 924. Only available with 0-10V drivers. Universal voltage only
  - SpectraSync+NX+SAF can not be configured. Only available with NXE or NXWE
- NX In-Fixture Control Options:**
- NX control function not available with VL lumen output
  - NXSW, NXWE, NXE and NXES cannot be used with surface mount versions
  - NX is available with ED and ED1 drivers only.
  - NX combined with SpectraSync is not available in 347V
  - For NX control and Flex Wire together, consult factory
  - NX controls can only be used with NX Sensor options.
- Third-Party Control Options:**
- LVS, LVR and ODPG only available with DALIP driver option
  - VIVE is a trademark of Lutron Electronics Co., Inc
  - Not available with SpectraSync (2750T or 2765T)
- For questions about configuration options, contact representative

Accessories (Order Separately)	
<b>FK14</b>	1' x 4' Flange Kit
<b>FK22</b>	2' x 2' Flange Kit
<b>FK24</b>	2' x 4' Flange Kit
<b>FK312</b>	300mm x 1200mm Flange Kit
<b>FK66</b>	600mm x 600mm Flange Kit
<b>FK612</b>	600mm x 1200mm Flange Kit
<b>CM48Y2SC3F-KIT</b>	48" Cable Mount Kit for 2' (or 600mm)wide Cable Mount fixtures, 3-Wire
<b>CM48Y1SC3F-KIT</b>	48" Cable Mount Kit for 1' (or 300mm)wide Cable Mount fixtures, 3-Wire

# Current

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**[currentlighting.com/columbialighting](https://currentlighting.com/columbialighting)**

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