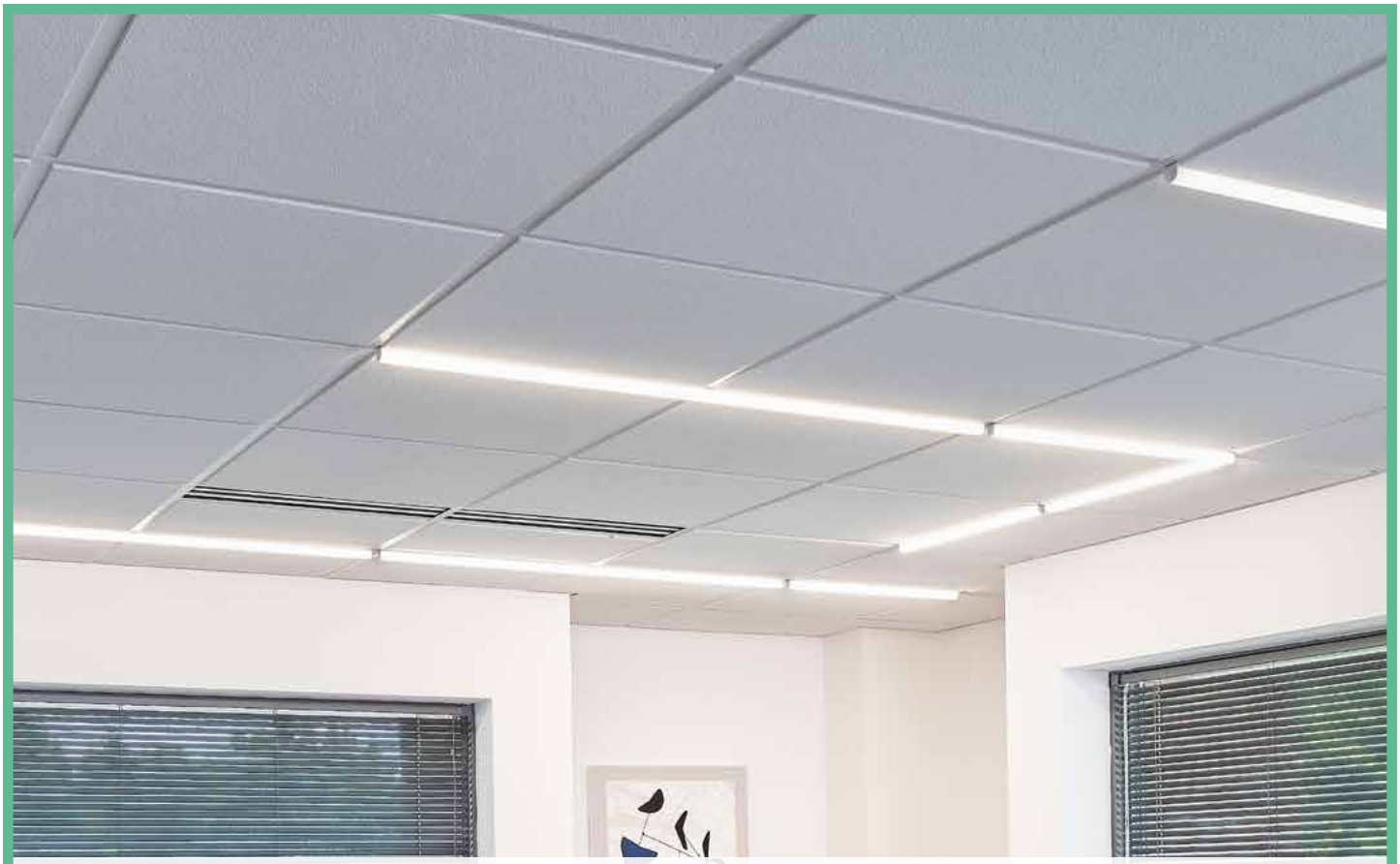
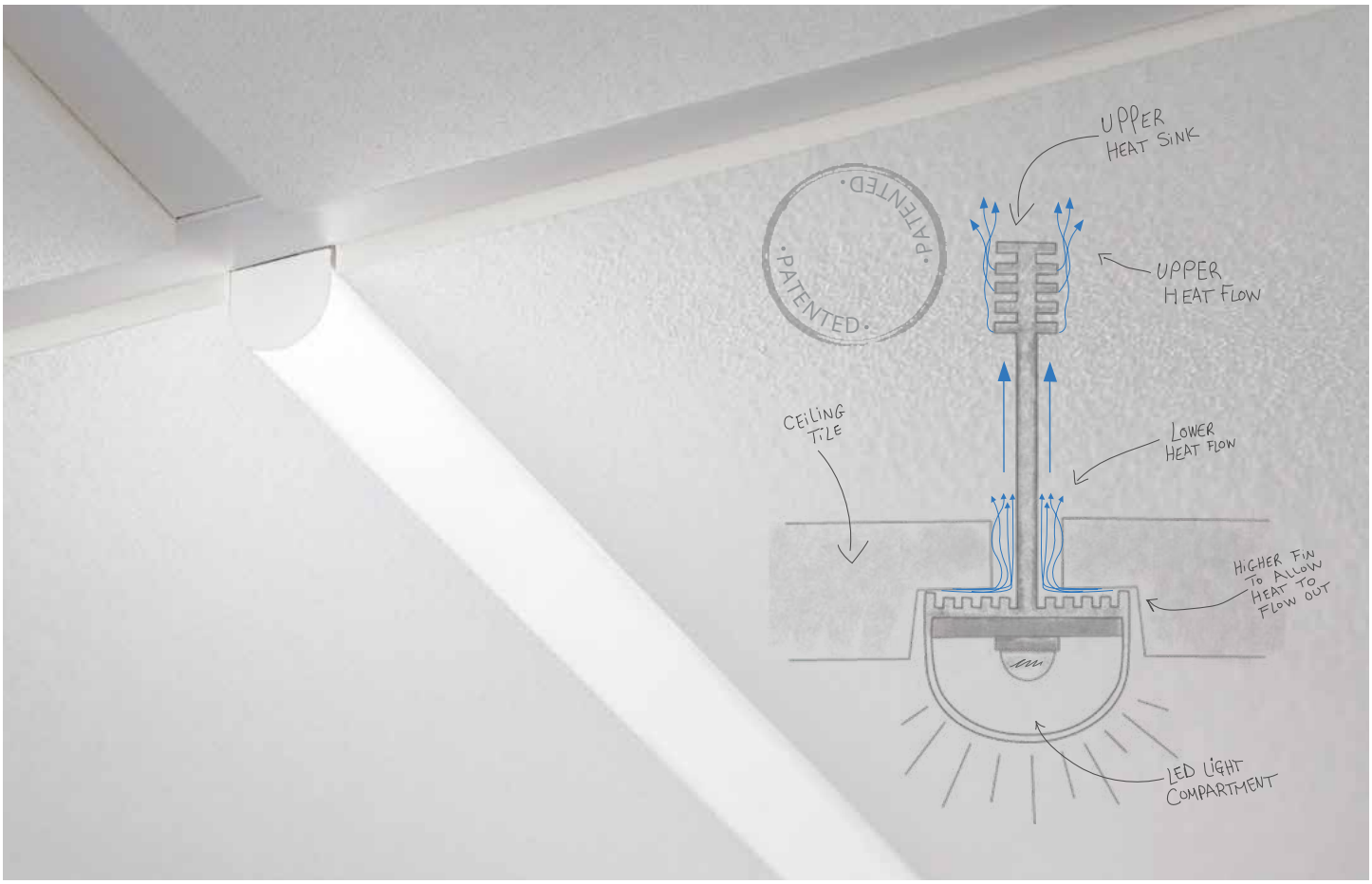


T-BAR ECO®

by JLC • tech

JLC-Tech – Creating the only lighting products that are designed, approved and patented to replace the cross members in a suspended grid ceiling system.

JLC-Tech LLC | Pembroke, MA – USA
781-826-8162 | info@jlc-tech.com | www.tbareco.com



T-BAR ECO® by JLC • tech

JLC-Tech, a pioneer for architecturally integrated LED lighting solutions, strives to offer the most technologically advanced options when it comes to lighting your next project.

T-BAR ECO is designed to optimize energy efficiency, while also leveraging JLC-Tech's patented technology of directly replacing the cross members in a suspended ceiling. Available in a typical line voltage model, with on-board 120-277VAC driver and 0-10V dimming, as well as a low voltage 24VDC option with remotely installed 0-10V dimming driver. Both models offer square or round extruded lens options, and have proprietary mounting clips that make installation simple. Ideal for a wide range of both retrofit and new construction applications, the T-BAR ECO offers superior performance with a greater return on investment, while also reducing building materials and maintenance.

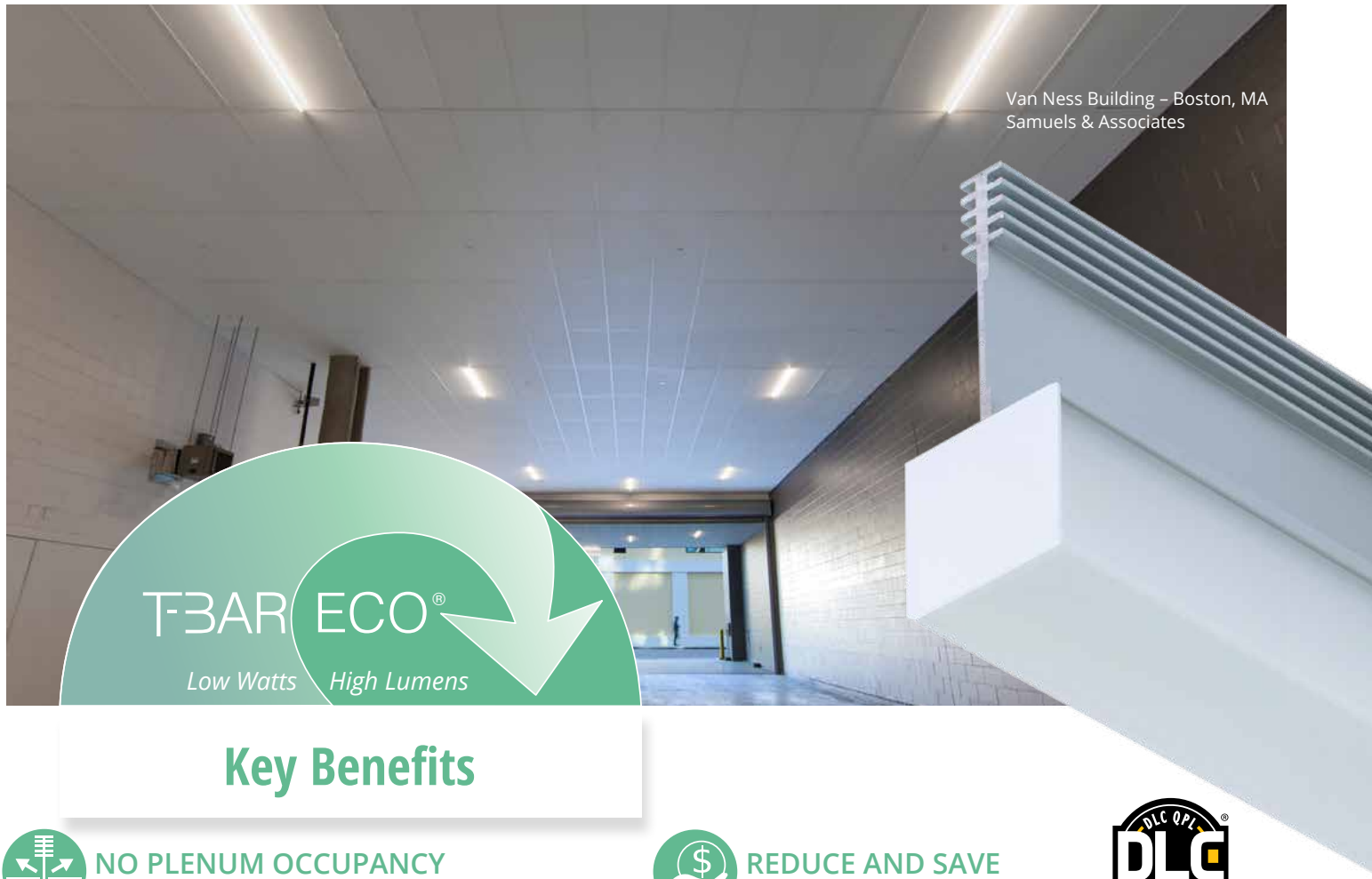
JLC-Tech – "It takes a genius to make it simple."

MADE IN USA

www.jlc-tech.com/patents

Why T-BAR ECO®?

The T-BAR ECO is a standard commercial grade product offering the same key benefits and high-end aesthetics that are present with the T-BAR LED™ architectural line. With a more basic feature set, but same quality engineering standards, the T-BAR ECO is a cost-effective solution ideal for contractor design-build projects needing quick delivery and high efficiency performance.



Van Ness Building – Boston, MA
Samuels & Associates

Key Benefits

NO PLENUM OCCUPANCY

- Low profile lighting replaces the grid (equals height of a cross tee)
- Remote DC power supplies leaves plenum virtually unoccupied
- No competition for space with other ceiling utilities

REDUCE AND SAVE

- Installation is literally a snap! Minimal-to-no-tools required
- No field modification of grid or tiles required
- Up to 50% savings in labor and materials costs

IMPROVED CEILING PERFORMANCE

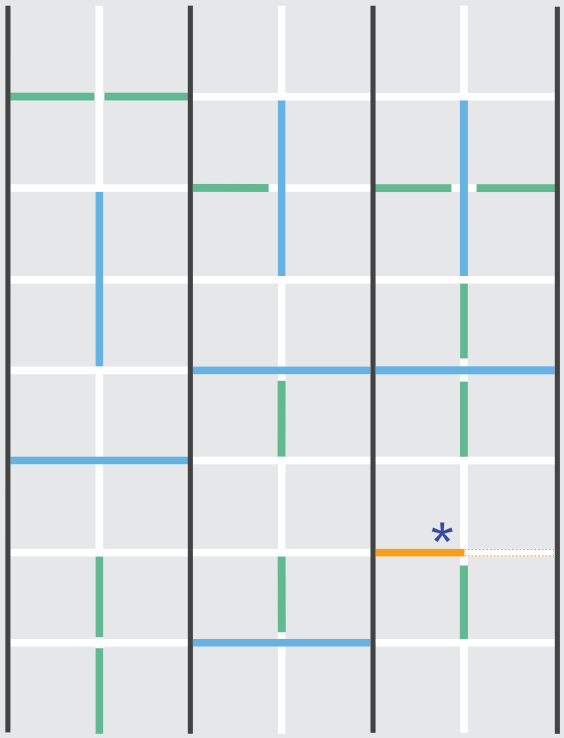
- Lights occupy the grid only, optimizing the ceiling's ability to enhance occupant well-being
- No interrupted tiles means maximizing tile's acoustical qualities
- Simplifies the disinfecting and cleaning of ceiling surfaces
- Uniform ceiling surface equals improved light reflectance

MAXIMIZED VERSATILITY

- Modular lighting system can be placed in the ceiling wherever light is needed
- Simple to relocate fixtures in flexible work space designs
- Remote low voltage power supplies can be independently controlled for up to 12 linear feet

Mounting Configurations

T-BAR ECO can be installed in many configurations by replacing any of the cross tees between the main runners of the grid ceiling assembly.



4’ T-BAR ECO

2’ T-BAR ECO

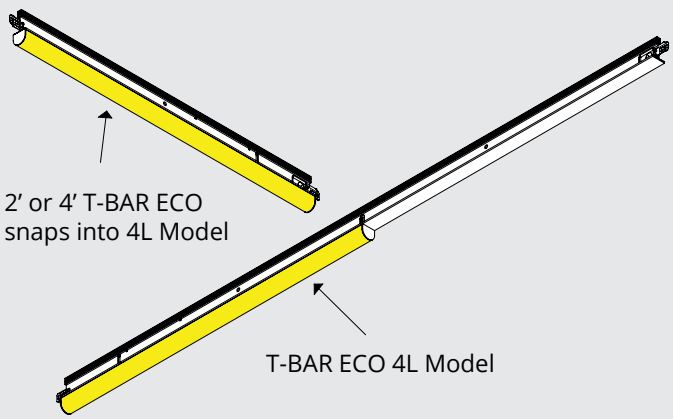
4L® Model T-BAR ECO

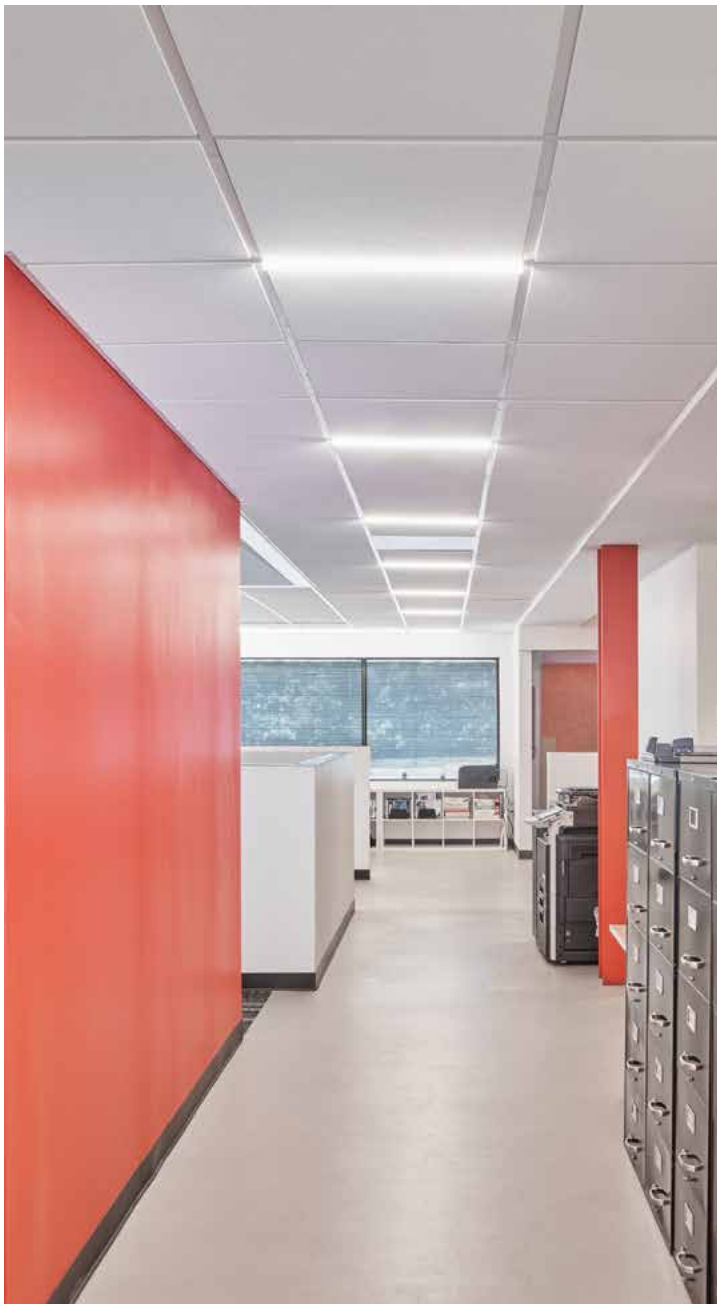
Possible positions for T-BAR ECO light modules

One-piece main runner cannot be replaced by light modules

* 4L® Model

This model is illuminated on only two feet of its length, while the other two feet are machined flat to replicate a standard flat cross tee. By selecting the 4L Model you will be able to create shapes and patterns that include a 90° lighted connection.

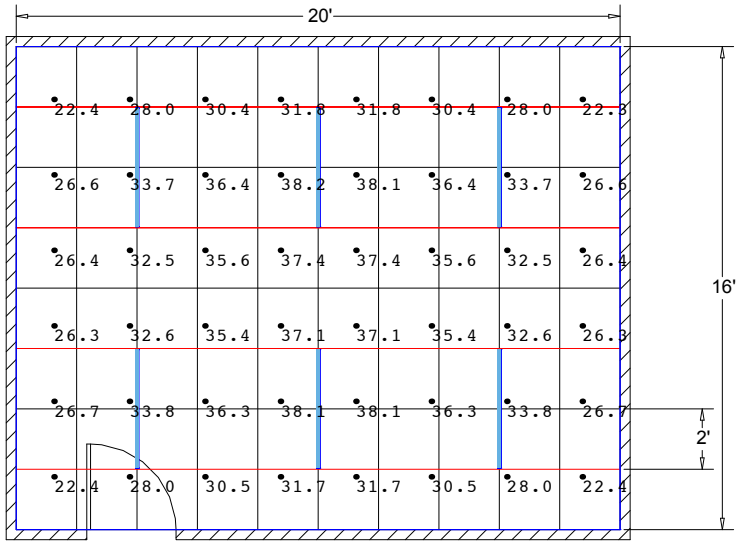




Weigand Associates, Inc. – Germantown, MD

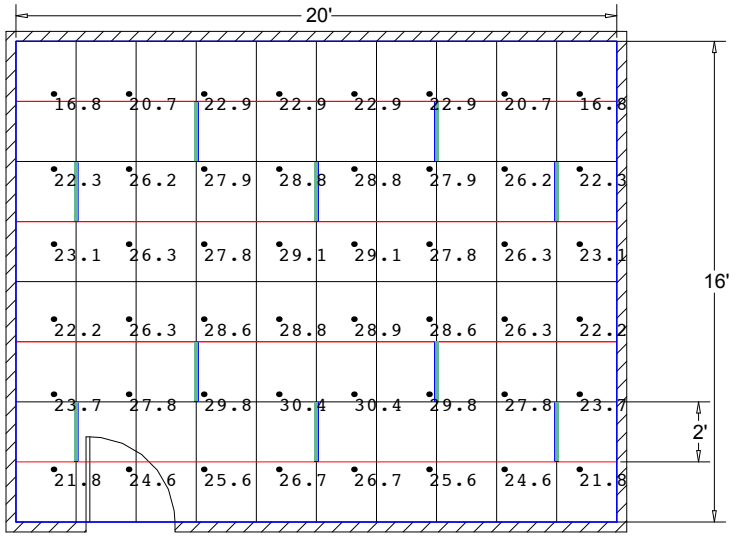
90° configurations are possible by using our 4L® Model

Symmetric configuration



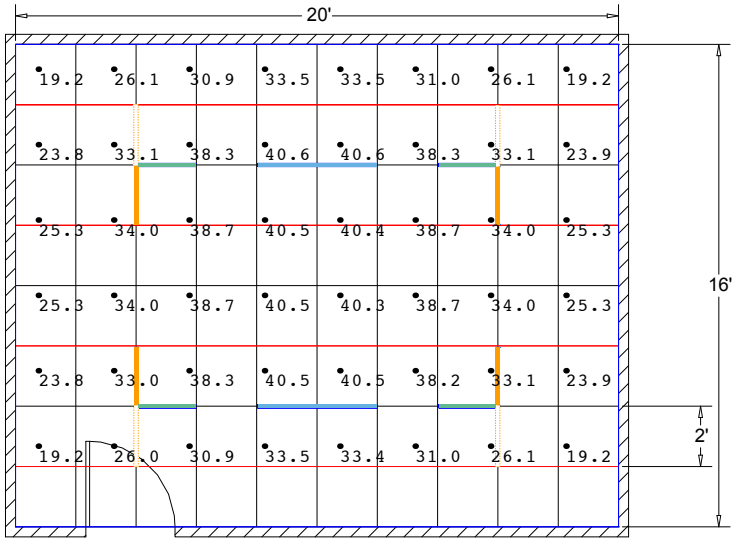
Room Dimension: **16x20 feet (320 S.F.)**
Ceiling Height: **9 feet**
Average foot candle achieved at desk level: **31.59**
Power Density: **0.33 W/sq. ft.**
Quantity of product: **6 pcs. TBECOH-MN-4-24-DW-X-UNV**

Staggered configuration



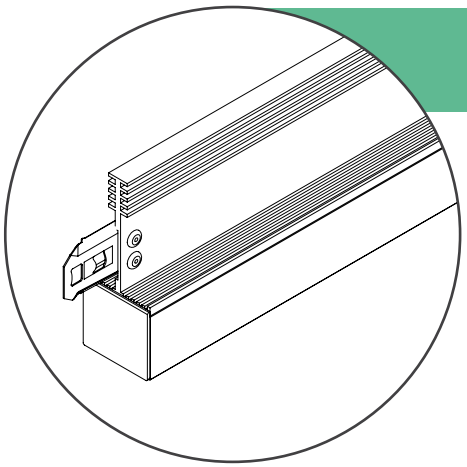
Room Dimension: **16x20 feet (320 S.F.)**
Ceiling Height: **9 feet**
Average foot candle achieved at desk level: **25.46**
Power Density: **0.29 W/sq. ft.**
Quantity of product: **10 pcs. TBECOH-MN-2-24-DW-X-UNV**

4L™ Model configuration



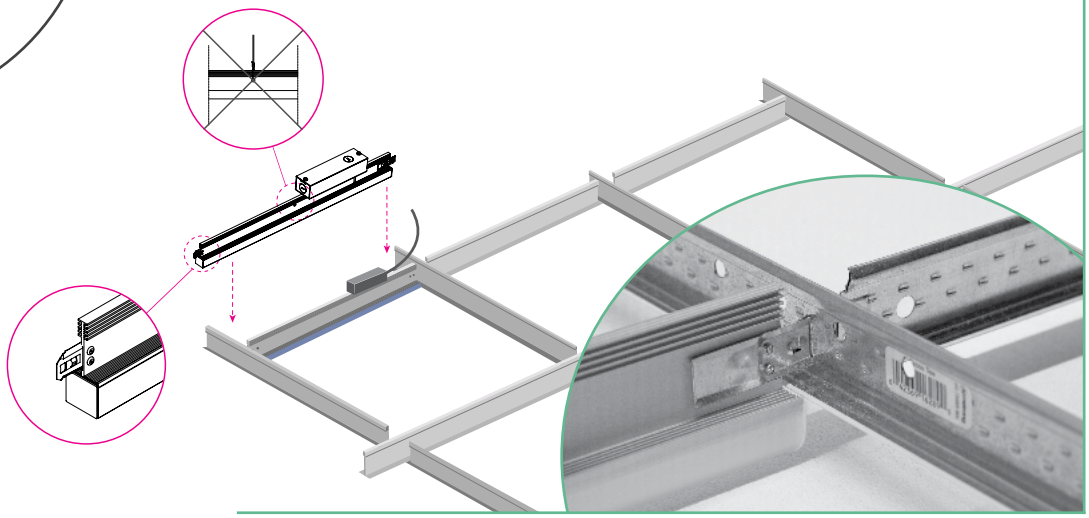
Room Dimension: **16x20 feet (320 S.F.)**
Ceiling Height: **9 feet**
Average foot candle achieved at desk level: **31.99**
Power Density: **0.34 W/sq. ft.**
Quantity of product: **4 pcs. TBECOH-MN-2-24-DW-X-UNV**
2 pcs. TBECOH-MN-4-24-DW-X-UNV
4 pcs. TBECOH-MN-4L-24-DW-X-UNV

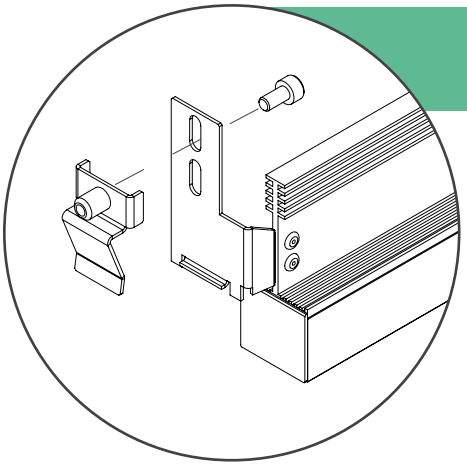
Two Easy Installations for Suspended Ceiling Systems



Armstrong® CEILING SOLUTIONS Compatible Clip

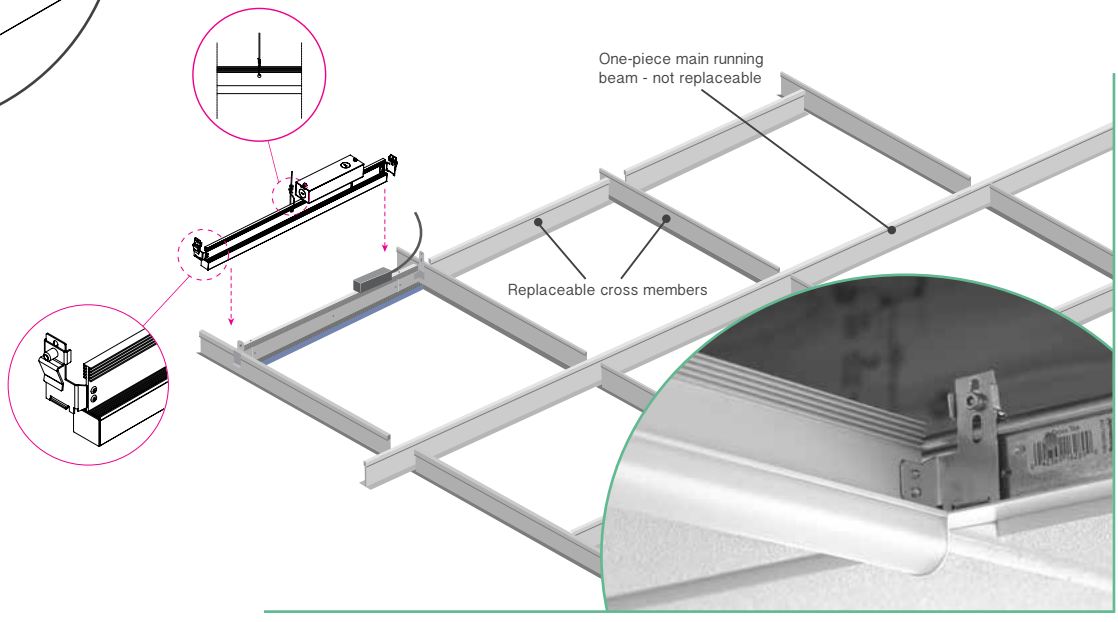
Specifically designed by Armstrong® Ceiling Solutions for JLC-Tech, the X-LED clip is mounted at each end for easy installation into Armstrong 15/16" ceiling suspension systems, allowing the fixture to become a part of the certified ceiling assembly, eliminating the need for support wires. T-BAR ECO replaces selected cross tees of the grid ceiling suspension system where light is desired. (See Armstrong Ceiling Compatible Clip installation instruction for more details.)



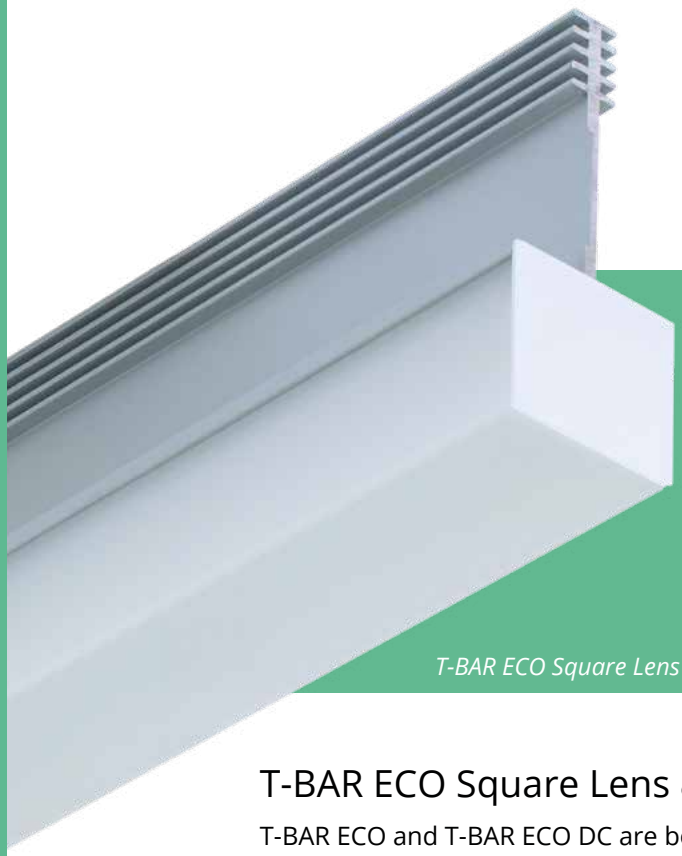


Universally Compatible Clip

Specially designed brackets are mounted at each end of the fixture for easy installation into most manufacturers' standard 15/16" ceiling suspension systems. T-BAR ECO replaces selected cross tees of the grid ceiling suspension system where light is desired. (See Universal Clip installation instruction for more details.)



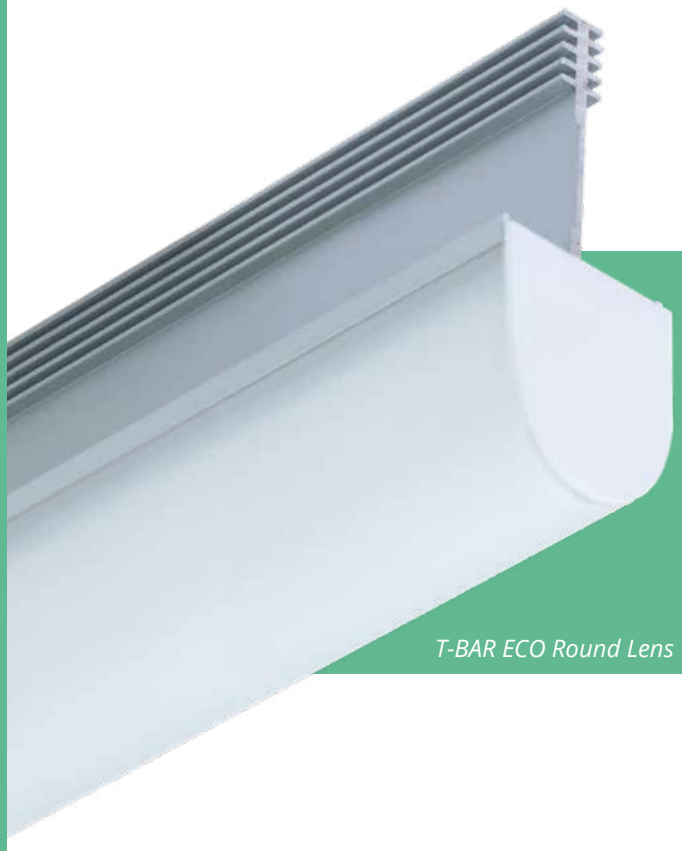
Two Optic Options



T-BAR ECO Square Lens

T-BAR ECO Square Lens & Round Lens

T-BAR ECO and T-BAR ECO DC are both available with either a square or round lens form factor, for different aesthetical options in a design. The lens material is made from a high quality extruded PMMA that has been precisely balanced with a milky white finish that hides any LED imaging while maintaining high light transmission for optimal efficiency.

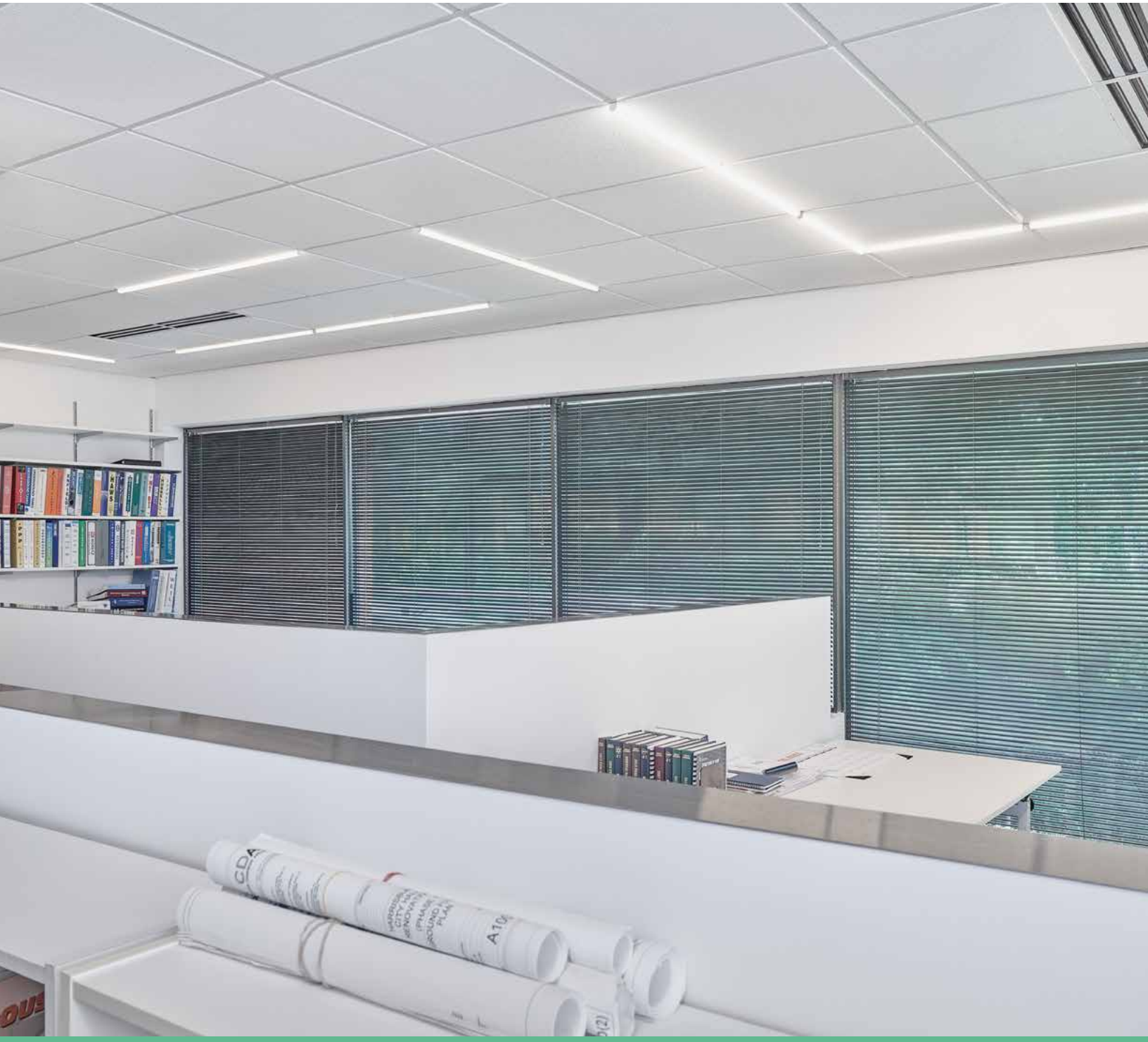


T-BAR ECO Round Lens

T-BAR ECO®

Line Voltage

The T-BAR ECO Line Voltage model offers a more typical approach to wiring with a junction box containing integral driver located on the back of each fixture. The on board driver features a universal 120-277VAC input and 0-10V dimming, and the junction box has multiple knock-outs for branch circuit connections and continuous row mounting. This power option allows for optimized electrical efficiency providing for exceptionally high lumens per watt.



Weigand Associates, Inc. – Germantown, MD

T-BAR ECO®

Product Name	LED/K Color	Size	Grid Type	Optic	Mounting Clips	Driver	Options
TBECOH = T-BAR ECO High Output 120-277V **TBECOL** = T-BAR ECO Low Output 120-277V	**HW** = 3000K **MW** = 3500K **MN** = 4000K	**2** = 2 ft **4** = 4 ft **4L** = 4 ft L **6** = 60 cm **12** = 120 cm **12L** = 120 cm L	**24** = 15/16"	**DW** = Diffuser White Round **DWS** = Diffuser White Square	**U** = Universal **A** = Armstrong	**UNV** = Universal 120–277V 0–10V dimming **POE** = Power over Ethernet*	**CP** = Chicago Plenum Optional EM Battery Kit available (sold separately).

www.jlc-tech.com/patents

*Consult factory for POE

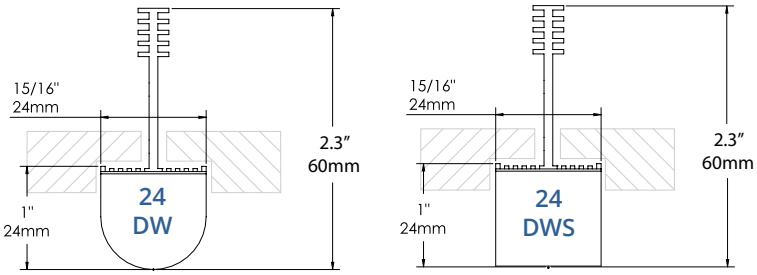
CRI = >82 L_{80} > 60K hrs IP40

Type	Lumens*	Watts	lm/W*	lm/ft*
TBECOL-2	949	6.4	147	474
TBECOL-4	1898	12.5	152	474
TBECOH-2	1328	9.4	140	664
TBECOH-4	2669	17.9	149	667

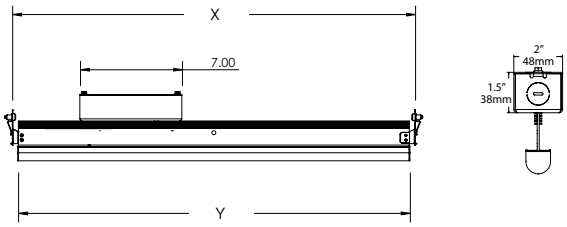
***4000K**

Profile Dimensions

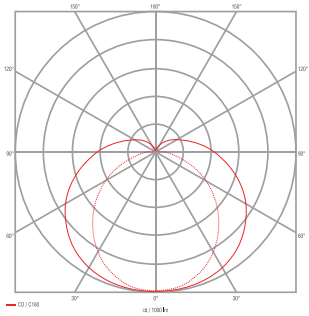
(Compatible with Tegular and Lay-in tiles)



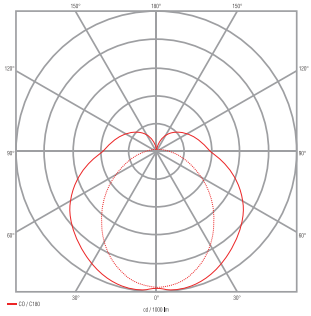
Length Dimensions



Size	Grid Type	X	Y
2 = 2ft	24 = 15/16"	24"	23"
4 = 4ft	24 = 15/16"	48"	47"
4L = 4ft L	24 = 15/16"	48"	24"



15/16" T-BAR ECO
Round Lens



15/16" T-BAR ECO
Square Lens

NOTES:

T-BAR ECO is a high efficiency LED fixture with integral driver, accepting universal voltage input and 0-10V dimming, offering uniform and diffuse light. Mounted junction box includes driver and compartment for AC input direct wiring and dimming connection. Fixture must be installed in accordance with local electrical codes.

APPLICATIONS:

Executive, Medical, Health, Educational, Retail, Hotels, Airport, Hospitality and any open space areas that require a unique and elegant architectural lighting design.

MOUNTING:

Universal mounting brackets for easy installation to standard 15/16" T-Bars of most manufacturers' ceiling suspension systems. Armstrong compatible mounting clips for installation with Armstrong Ceiling 15/16" Prelude® and Clean Room™ suspension systems. Compatible with Tegular and Lay-in tiles.

MATERIALS:

Anodized aluminum extruded body, steel mounting clips, white PC end caps, high transmitting acrylic PMMA lens.

ELECTRIC:

Universal input voltage of 120V - 277VAC. Junction box installed on fixture with integral driver for connection to line voltage and 0–10V dimming system. 90% LED lumen maintenance at 60,000hrs (L_{80}> 60k hrs) For EM Battery Kit order separately. POE options available, consult factory.

WARRANTY:

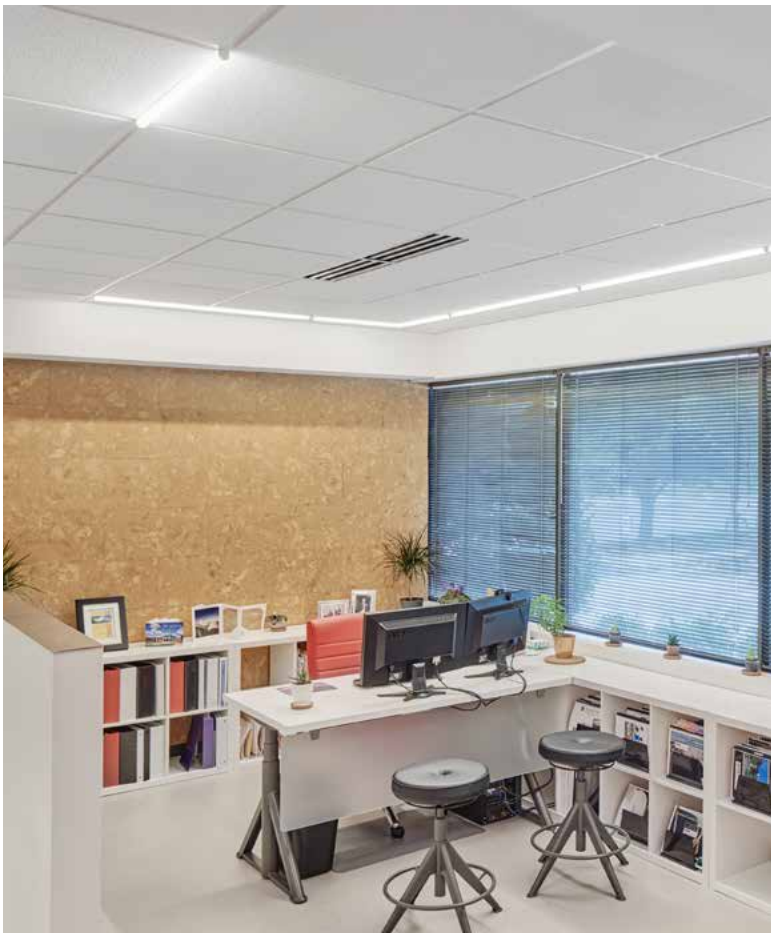
5 years limited warranty. For complete warranty terms, please visit our website.

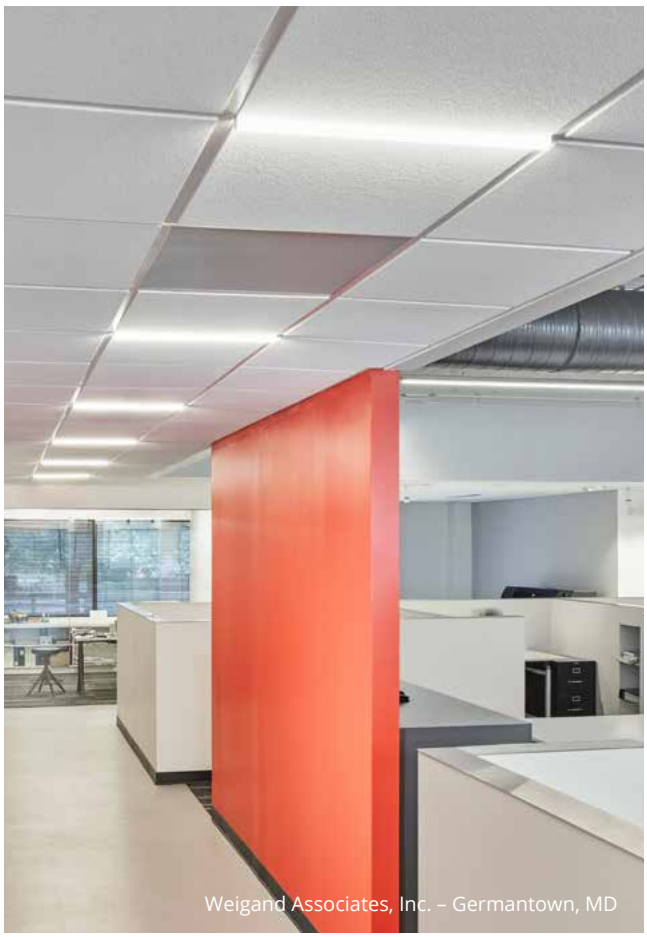
LISTINGS:

ETL/cETLus CE RoHS Indoor use only. IC Rated.

DLC QPL LISTED PREMIUM

MADE IN USA



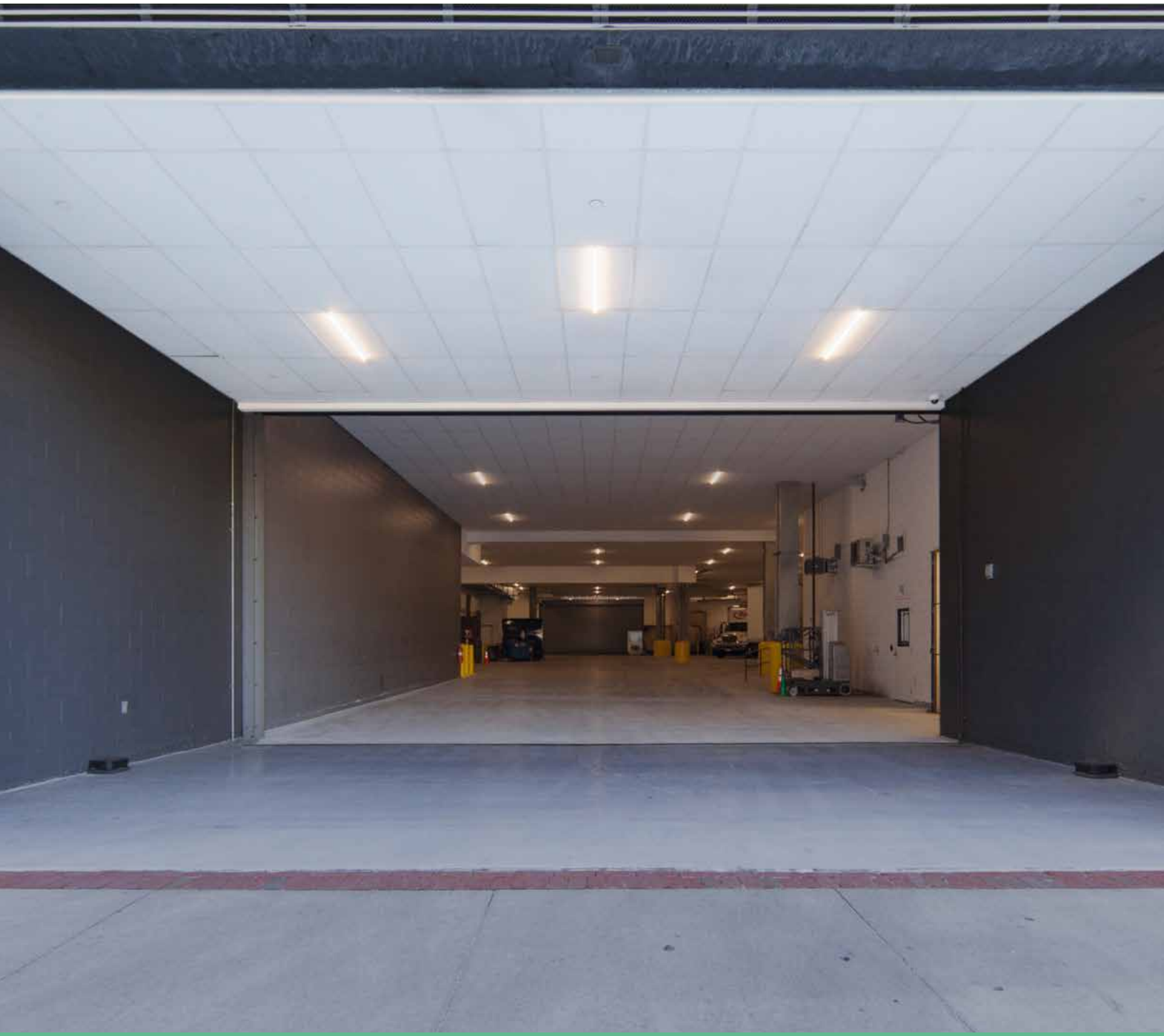


Weigand Associates, Inc. – Germantown, MD

T-BAR ECO® DC

Low Voltage

The T-BAR ECO DC model is a 24VDC low voltage light fixture that requires a remotely installed driver. Each fixture has a small junction box located on the back with low voltage wires inside to connect to a Class 2 remote power supply. The remote power supply has an integrated junction box and is rated for plenum installations, with a 120-277VAC input and 0-10VDC the 96W supply can power up to 12ft of T-BAR ECO DC product. Using safe, low voltage Class 2 wiring allows for a simple electrical installation, easy reconfiguration of fixtures for flexible use spaces, as well as the option to connect directly into DC powered micro-grid buildings.



Van Ness Building – Boston, MA
Samuels & Associates

T-BAR ECO® DC

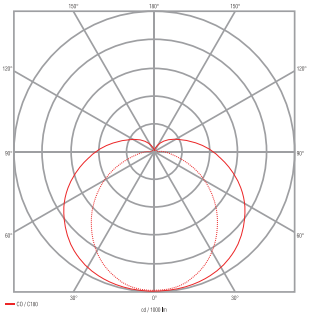
Product Name	Type of LED/K Color	Size	Grid Type	Optic	Mounting Clips
TBECODC = T-BAR ECO 24V DC	**HW** = Warm White 3000K **MW** = Medium Warm 3500K **MN** = Medium Neutral 4000K	**2** = 2 ft **4** = 4 ft **4L** = 4 ft L **6** = 60 cm **12** = 120 cm **12L** = 120 cm L	**24** = 15/16"	**DW** = Diffuser White Round **DWS** = Diffuser White Square	**U** = Universal **A** = Armstrong

www.jlc-tech.com/patents

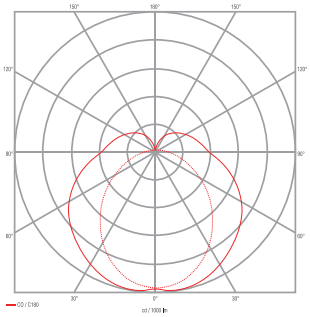
CRI = >80 L_{80} > 60K hrs IP40

Type	Lumens*	Watts	lm/W*	lm/ft*
TBECODC-2	1237	11.2	110	619
TBECODC-4	2474	22.4	110	619

***3500K**



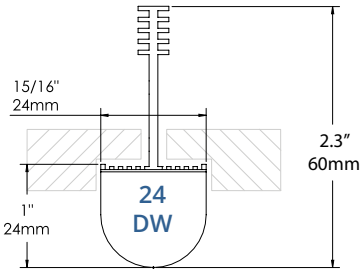
15/16" T-BAR ECO DC Round Lens

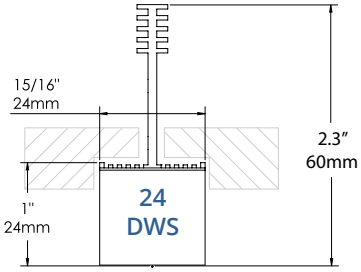


15/16" T-BAR ECO DC Square Lens

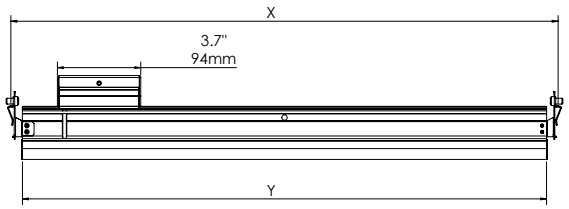
Profile Dimensions

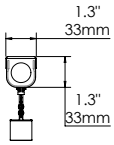
(Compatible with Tegular and Lay-in tiles)





Length Dimensions





Size	Grid Type	X	Y
2 = 2ft	24 = 15/16"	24"	23"
4 = 4ft	24 = 15/16"	48"	47"
4L = 4ft L	24 = 15/16"	48"	24"

NOTES:

T-BAR ECO DC is a 24VDC low voltage LED fixture that replaces the cross tees in a grid ceiling, offering uniform and diffuse light. Fixture must be installed in accordance with local electrical codes.

APPLICATIONS:

Executive, Medical, Health, Educational, Retail, Hotels, Airport, Hospitality and any open space areas that require a unique and elegant architectural lighting design.

MOUNTING:

Universal mounting brackets for easy installation to standard 15/16" T-Bars of most manufacturers' ceiling suspension systems. Armstrong compatible mounting clips for installation with Armstrong Ceiling 15/16" Prelude® and Clean Room™ suspension systems. Compatible with Tegular and Lay-in tiles.

MATERIALS:

Anodized aluminum extruded body, steel mounting clips, white PC end caps, high transmitting acrylic PMMA lens.

ELECTRIC:

T-BAR ECO DC fixtures have a 24VDC input and consume 7W/ft max. Junction box installed on fixture for low voltage wiring connection to remote driver (sold separately). L_{80}> 60k hrs

WARRANTY:

5 years limited warranty. For complete warranty terms, please visit our website.

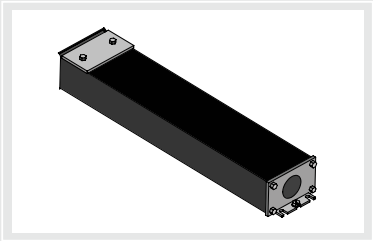
LISTINGS:

ETL/cETLus CE RoHS Indoor use only. IC Rated.

ASSEMBLED IN USA

Product Name	Driver Type	Power	Wattage	Voltage
TBECODC = T-BAR ECO DC Power Supply	**PS** = Non Dimmable **DIM** = 1% Dimmable 0-10 VDC	**HP** = High Power	**100W** = 96W	**UNV** = Universal 100-277V

WARRANTY: **5 years**

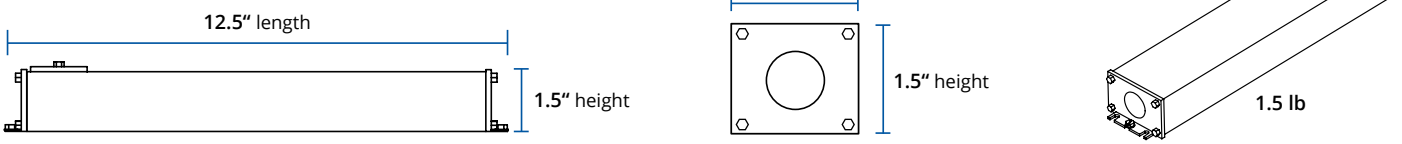


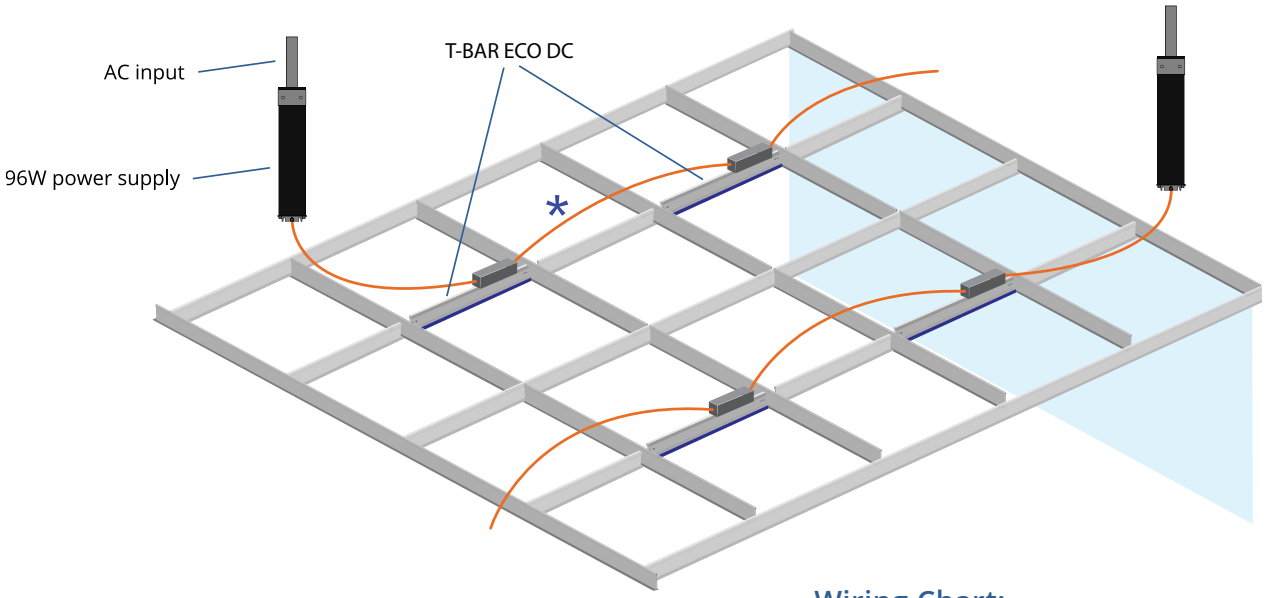
24VDC LED Driver 96W Power Supply

0-10 VDC dimmable and non dimmable

T-BAR ECO DC modules can be parallel connected up to 12 linear feet max per power supply. 96W max single output Class 2 power supply, universal input voltage 100-277Vac output 24VDC.This power supply includes a JB compartment for AC input direct wiring with metal conduit. Available with 0-10Vdc nominal 1% dimming option.

96W Power Supply dimensions





Secure LED driver to a remote location without the need of a NEMA box.

Wiring Chart:

Gauge	Length
18 (0.75 mm²)	30ft (9m) maximum
16 (1.5 mm²)	45ft (14m) maximum
14 (2.0 mm²)	70ft (21m) maximum

* *Cabling for low voltage connections between fixtures, by others.*

JLC • tech

Where no light has gone before.

JLC-Tech was founded with one singular vision: to create unique and useful LED lighting fixtures.

Improve room acoustics, achieve even illumination, reduce installation costs and minimize construction waste by using JLC-Tech's products, the only lighting fixtures that replace the cross tee in the suspended ceiling system.

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370 Corporate Park, Pembroke, MA 02359

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info@jlc-tech.com
www.tbareco.com

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