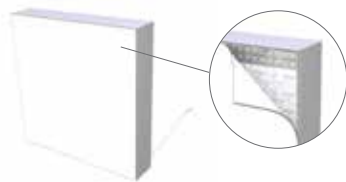


## CASE STUDY

# NEW HIGH SCHOOL LIGHTING FEATURING A SUSPENDED CANVAS BOX



**LUXCANVAS™**  
LED LIGHT TEXTILE  
FEATURING LUXFLEX LED SHEETS

## LED ILLUMINATED CEILING DENTON HIGH SCHOOL, DENTON, TX



## OVERVIEW

### NEW HIGH SCHOOL LIGHTING FEATURING A SUSPENDED CANVAS BOX

DENTON, TX

**architect/lighting design** VLK Architects

**client** Denton High School

**product** LUXCANVAS™ Suspended Textile Illumination  
featuring LUXFLEX™ LED Flexible Sheets

**manufacturer** LEDCONN

The population of the United States has grown significantly in recent years, and growing larger still is the migration to certain areas of the country. Larger cities such as Los Angeles and New York have seen their populations shrink and move to more rural areas that are, in fact, now growing into more new, urban areas. This presents new issues for the rural areas and the burden falls on them to not only accommodate their new residents but also plan for continued growth in their area.

In the year 2000, the U.S. saw a national public high school enrollment of 13.5 million students. By 2023, that number had grown to 15.5 million students. Clearly all areas nationwide, especially the growing rural areas, need to ensure that these students have enough learning centers to accommodate them and do so comfortably.

The science of construction, especially indoor lighting, has grown and changed in past decades, and advances in technology continue to bring new options. Expensive, inefficient lighting has been replaced with new, more effective LED technology. The LED lighting not only saves a great deal of money in annual power consumption costs, it also provides a number of options for adjusting light color. In certain environments such as schools, new construction and installation of lighting is now designed to better ensure optimum levels of lighting performance and energy efficiency while staying within the confines of a school construction budget.

Texas is one of the states that is hard hit when it comes to new resident immigration. When the city of Denton, Texas designed plans for building a new high school, the design was not just for accommodating the area but also planning for future growth. The plan was a spacious, two-level building with a number of large windows and open spaces. This would ensure a great deal of natural light streaming in from outside. Inside the structure, they needed a lighting solution that could be installed in the high ceilings and still provide an excellent light source.

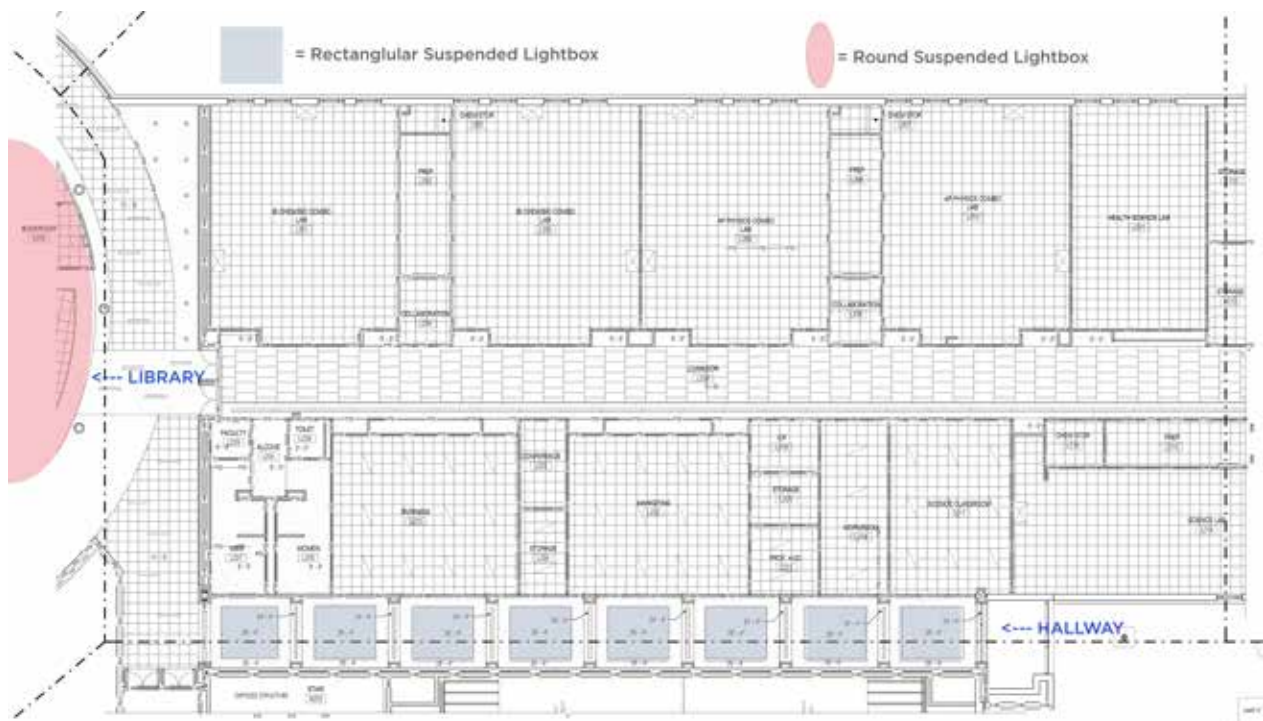
# CHALLENGE

In Denton's new high school, the two-level building was designed with high ceilings, requiring a lighting solution that was bright enough to illuminate the entire space with continuous bright light and no hot spots.

Leading this project was the Hossley agency in Texas, and they knew the perfect company to take on such a large, detailed lighting project. They reached out to Ledconn, a southern California company that specializes in creating custom lighting solutions for backlit LED projects exactly like Denton's detailed ceiling plan.

The plan was very detailed and called for the installation of a number of lightboxes for backlighting the hallways and library. As always, the lighting had to be seamlessly installed in the ceiling materials in both locations (hallways and library) while ensuring that a number of details were met within the project.

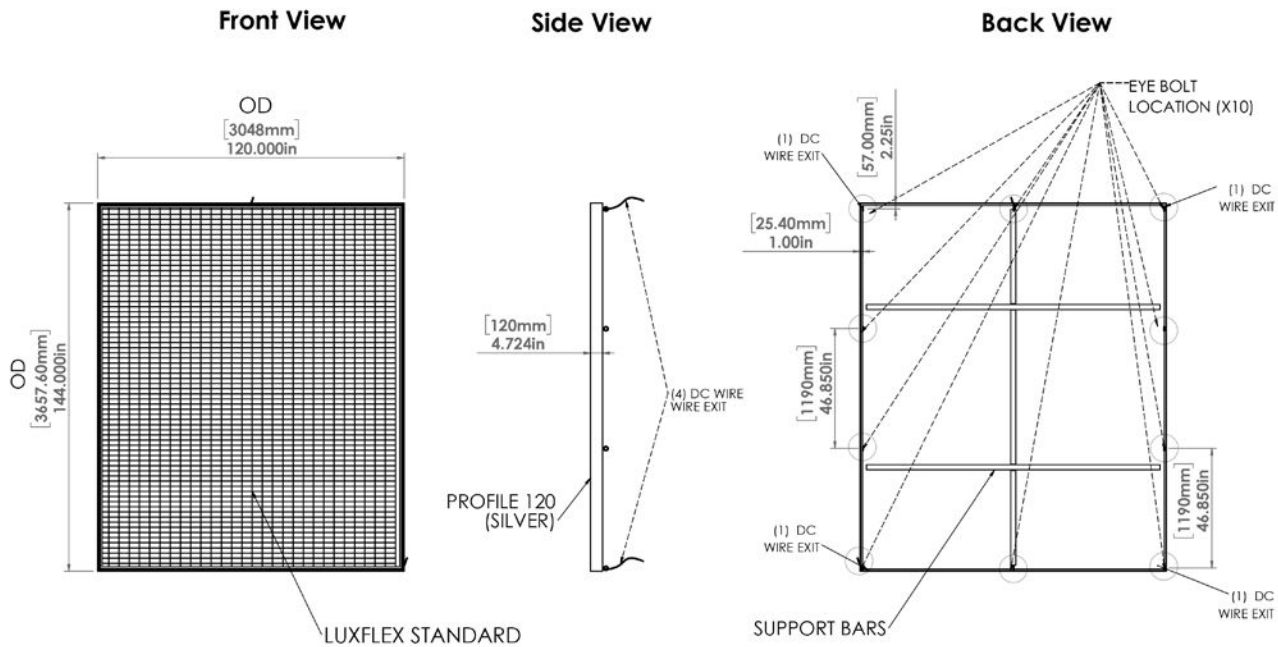
The main challenge was the install height. In the hallway, the lightboxes were more recessed into the ceiling than suspended while the library space required more suspension. The lightboxes had to be installed in the ceilings which were 31' high. This was an issue for accessing the ceilings in the narrow hallways as the Ledconn engineers had to use a single-man scissor lift. Once the lift was positioned in the hallway, a single engineer had to bring a 10' lightbox 31' up on the swaying scissor lift. Once in place, the engineer carefully installed the lightbox into the ceiling. Once it was installed, they had to move the scissor lift to the next spot and repeat the process.



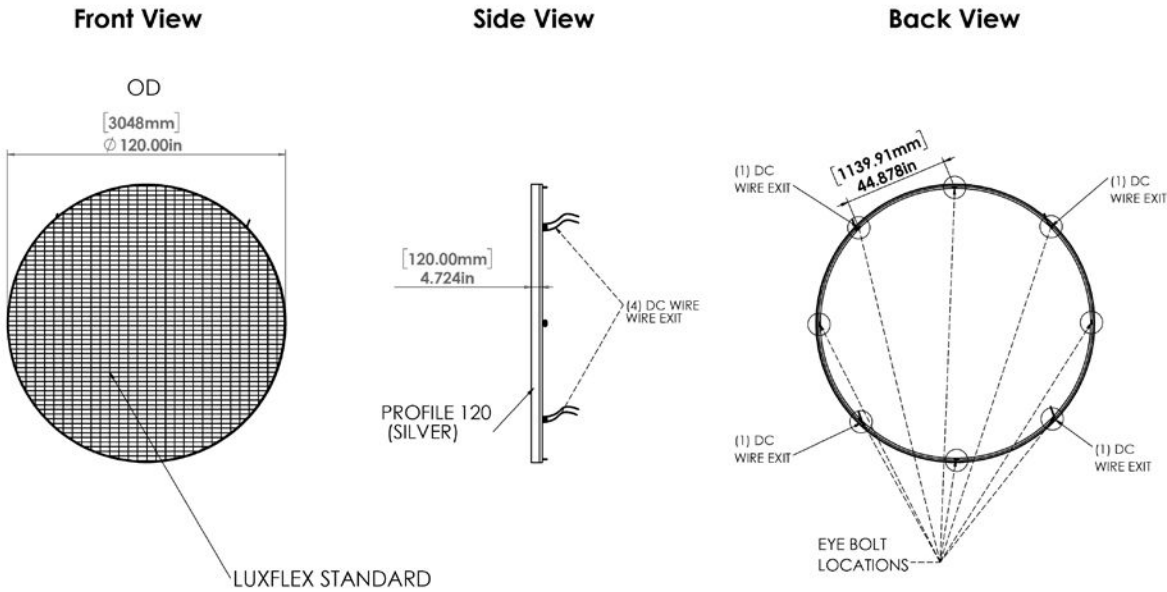
Lighting Layout - Denton High School Denton, Texas

# SOLUTION

Ledconn recommended the LuxFlex Standard Profile 120 Lightbox. This is a silver framed lightbox that is suspended from the ceiling with 120" aviation cable and eyebolts. The downside of the lightbox is a thin white canvas material that provided 25000-26000 delivered lumens. Power would be remote with a dimming option of 0-10V.



Rectangular Lightbox by LEDCONN - Denton High School Denton, Texas



Round Lightbox by LEDCONN - Denton High School Denton, Texas



# THE FINALE

Upon completion, the Denton High School project was met with rave reviews in a number of areas. While the lighting budget had to be elevated to meet building size requirements, the Denton area was more than pleased with the results of their new high school and the project even caught the attention of the lighting industry. So much so that the Denton project was awarded a BUILD Award of Excellence in 2022. Illumination is not only essential, it can also be both stylish and functional. This project clearly represents both.

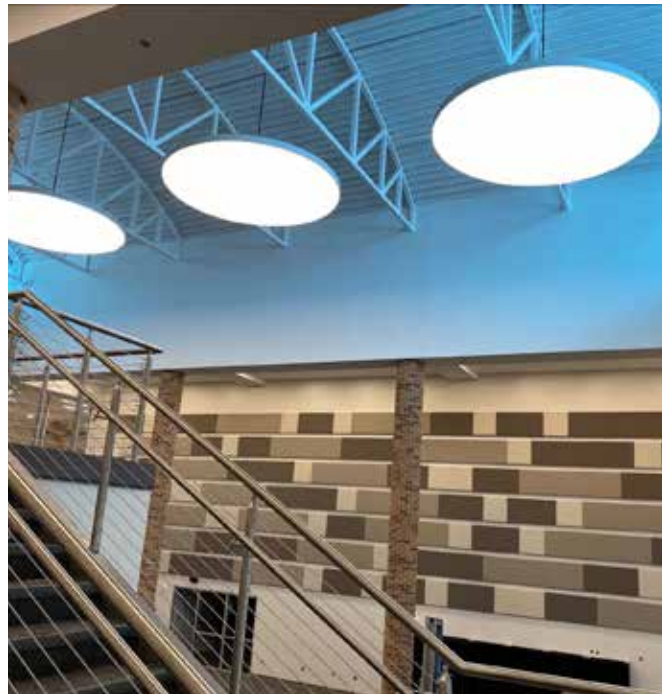
View a video of the history and construction of the new Denton High School: [bit.ly/3RwRKIF](https://bit.ly/3RwRKIF)



Rectangular Lightbox by LEDCONN - Installation in hallway of Denton High School Denton, Texas



Looking at the Round Lightbox by LEDCONN - Installed in library of Denton High School Denton, Texas



Round Lightbox by LEDCONN - Installation in library of Denton High School Denton, Texas

## PRODUCT

The amazing results were achieved by using the following materials:

- [LUXCANVAS Suspended LED Textile Illumination](#), 3000K, various sizes
- [LUXFLEX LED Flexible Sheet Light](#), 3000K, various sizes (internal light engine)

## LINKS

- [View similar projects](#)

**Do you need a lighting solution for your project? Our team is ready to help.**  
**[Reach out to us for a complimentary lighting consultation today!](#)**