

AV, Broadcast, & Videoconference Lighting Solutions



About Brightline

Award-winning manufacturer of energy-conscious lighting

- Founded in 1997 & made in the USA
- Management shares +100 years in broadcast, video & film
- Top industry team from lighting & engineering fields
- Installed at 5000+ video and broadcast facilities
- Products designed & built to highest performance standard



Brightline Architectural Media Products

Fixture Types and Ideal Applications

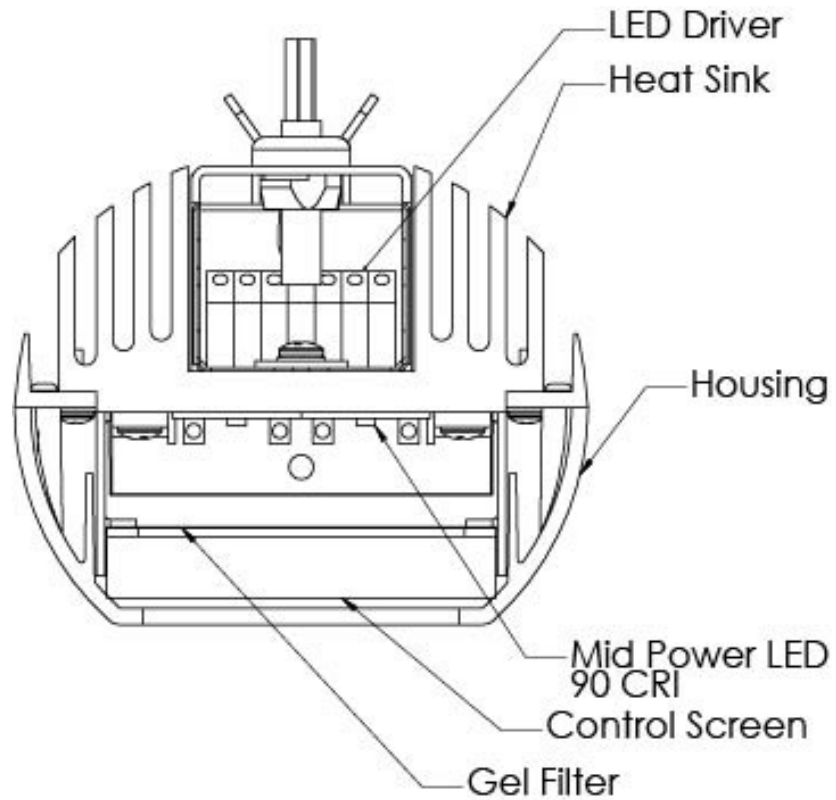


Flex-T





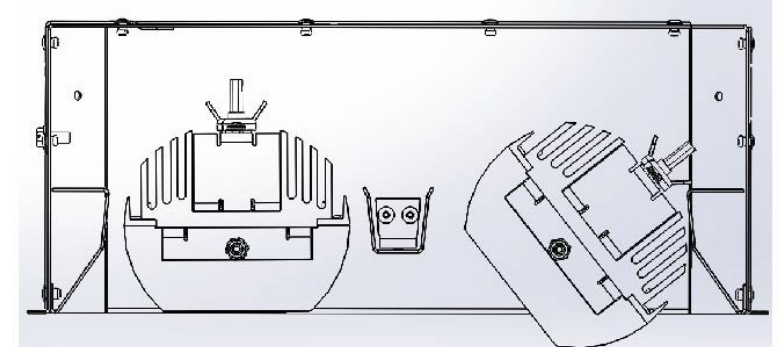
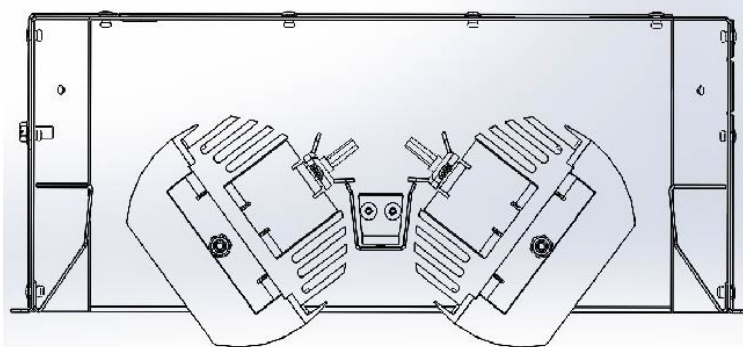
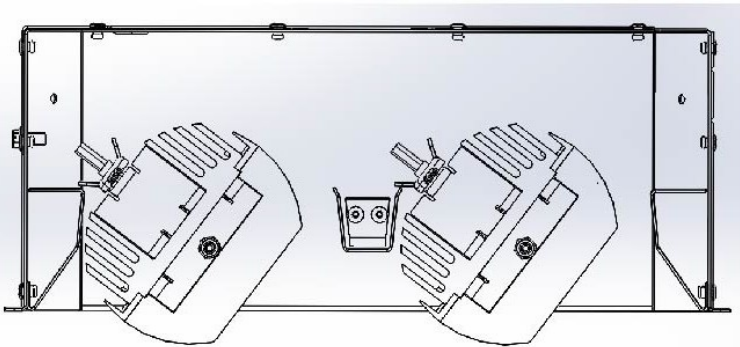
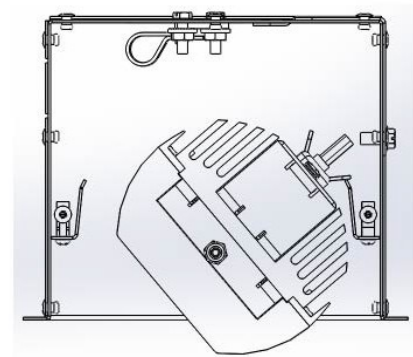
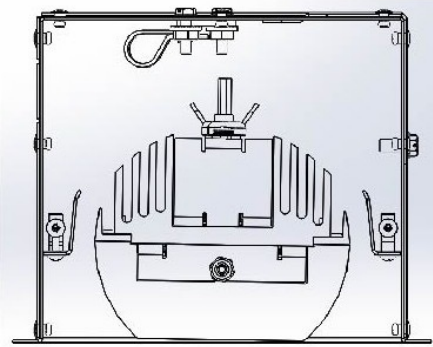
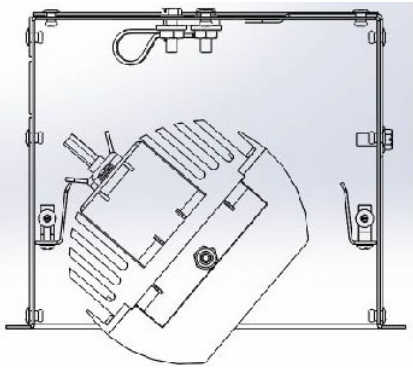
SELF-CONTAINED LIGHTING MODULES



With low-profile fixture height, The Flex-T accommodates shallow ceiling clearances and is completely serviceable from below.



VARIABLE TILT ANGLES



Each individual module of the Flex-T features a wide range of rotation, facilitating flexibility in beam placement and direction.



Executive Showcase Conference Room

Lighting upgrades



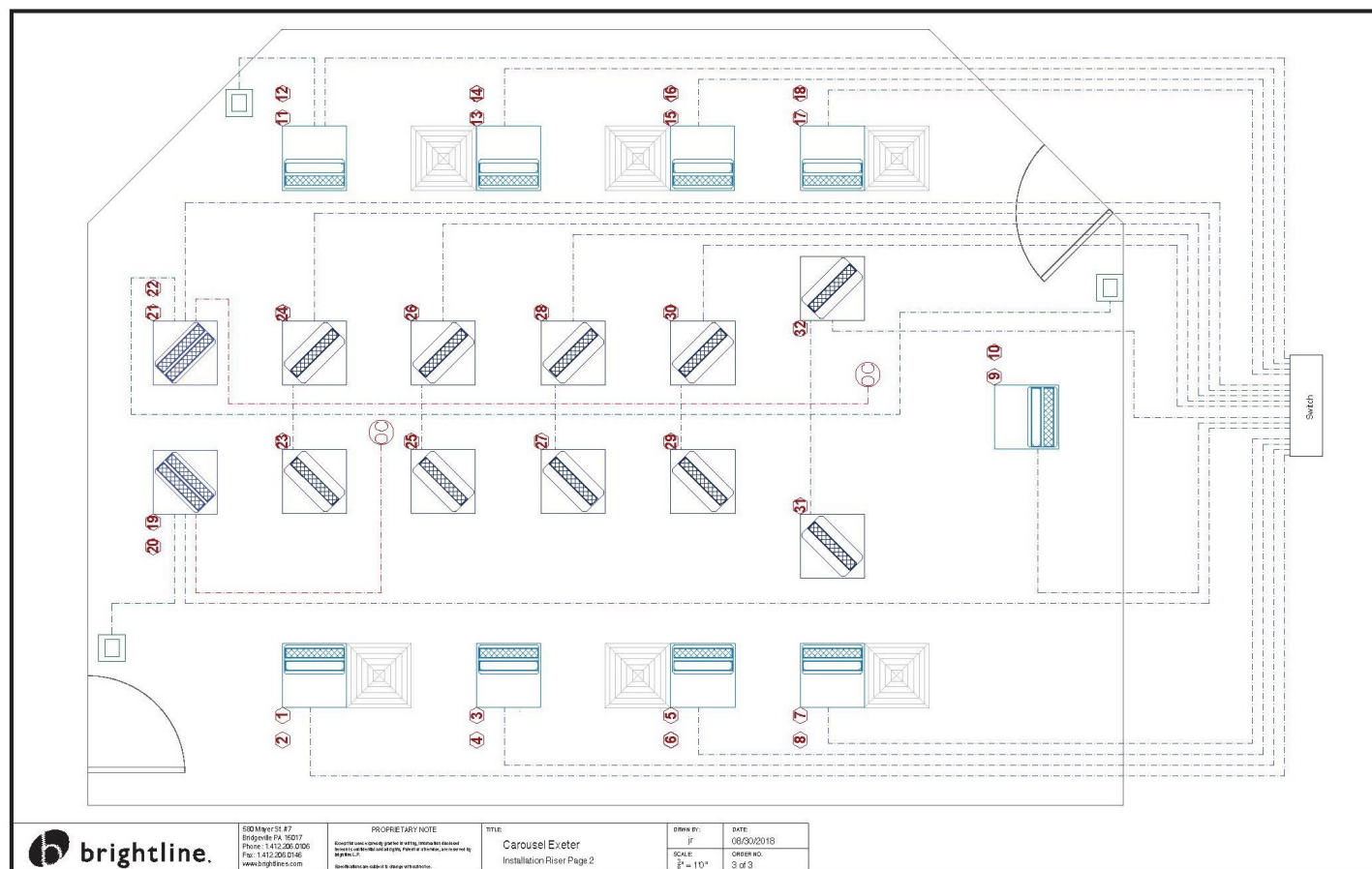
BEFORE



AFTER



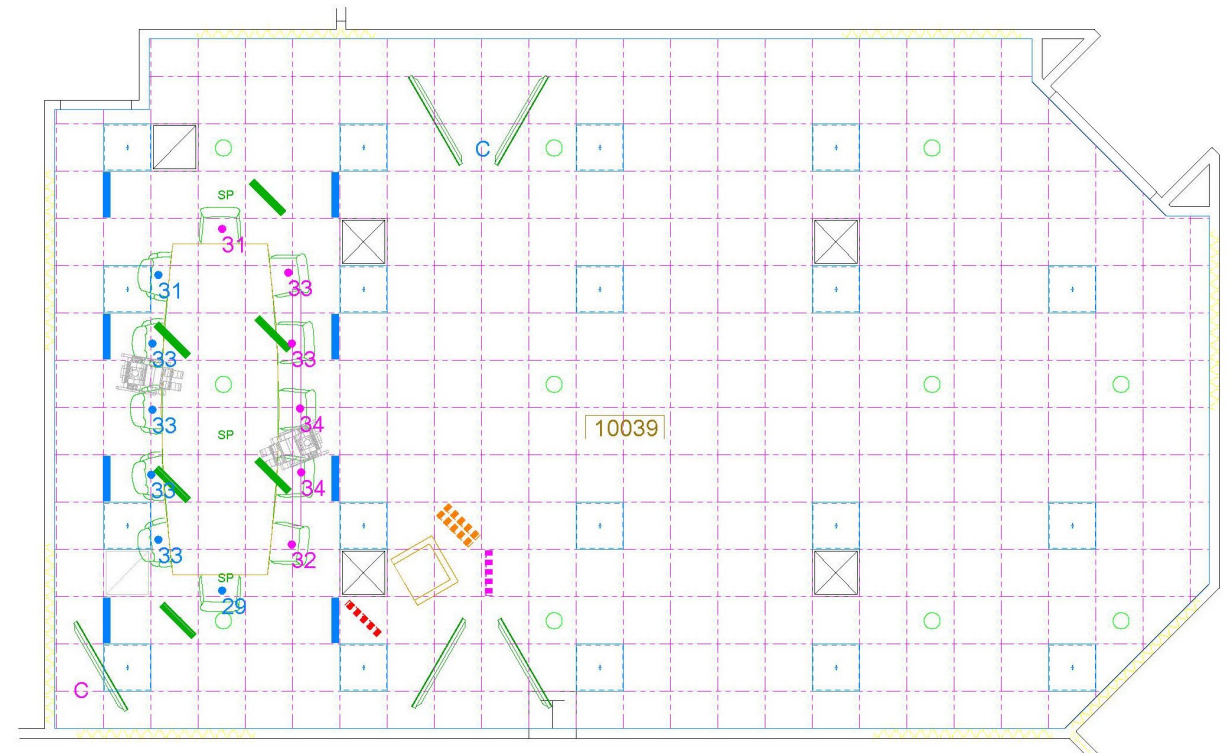
Power Over Ethernet Riser Diagram





Lighting Levels – Designed in AGI 32

- With a once in 25-years budget, the facilities team at Maricopa County contracted Spinitar to design and integrate a state-of-the-art video conference facility for their public access council meetings.
- Both the Maricopa and Spinitar team appreciated the benefits of a total PoE-controlled lighting scheme.
- Evenly distributed foot-candles at vertical face height match ideal IESNA target levels.
- Brightline replaced the surface-mounted fluorescent lights that blocked line of sight with ceiling-recessed LED Flex-Ts.
- The new PoE LED lighting was carried throughout the room into task lights, providing a cohesive look and the convenience and safety of low voltage control.





What is PoE?

- Power-over-Ethernet (PoE) is a technology used in wired Ethernet local area networks (LANs) to deliver power over the same cable as the data
- This reduces the number of cables and power supplies required to install a network and power the devices connected to it
- Typical devices include:
 - VoIP phones
 - Wi-Fi access points
 - IP security cameras
 - Point-of-sale equipment
 - LED Lighting
 - More to come...



Benefits of PoE

Cost Savings	No conduit required, lower cost labor
Integration	Power and data on the same cable
Plug-and-play	All IEEE 802.3at/bt devices are cross-compatible
Safety	55VDC (nom) much safer than 120/208/277VAC
Control/management	All devices can be managed through IT network
Availability	Power accessible wherever there's an Ethernet connection



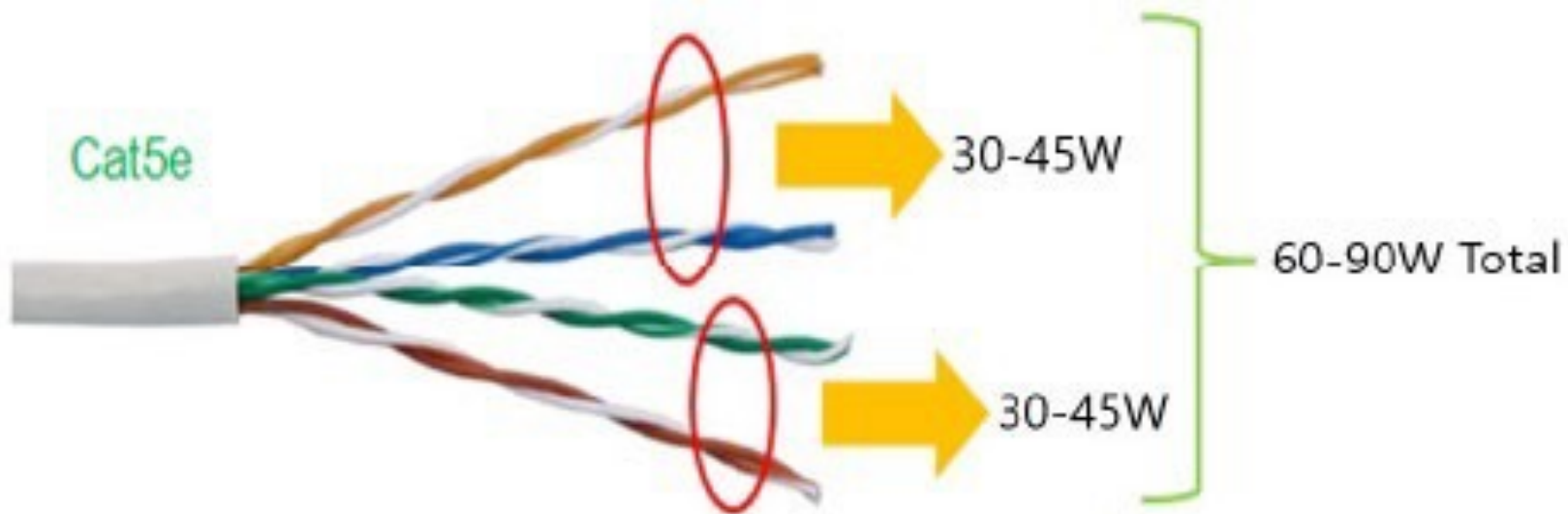
PoE Standards

Category	PoE	PoE+	UPoE	4PPoE
IEEE Standard (release year)	802.3af (2003)	802.3at (2009)	Cisco Proprietary	802.3bt 9/27/2018
Maximum power per PSE port	15.4W	30W	60W	90W+
Minimum guaranteed power to PD	12.95W	25.5W	49W	71W
Minimum cable type	Cat5e (24 AWG)	Cat5e (24 AWG)	Cat5e (24 AWG)	Cat6 (23 AWG)
Twisted pair used	2-pair	2-pair	4-pair	4-pair



Power over Ethernet on UTP Cable

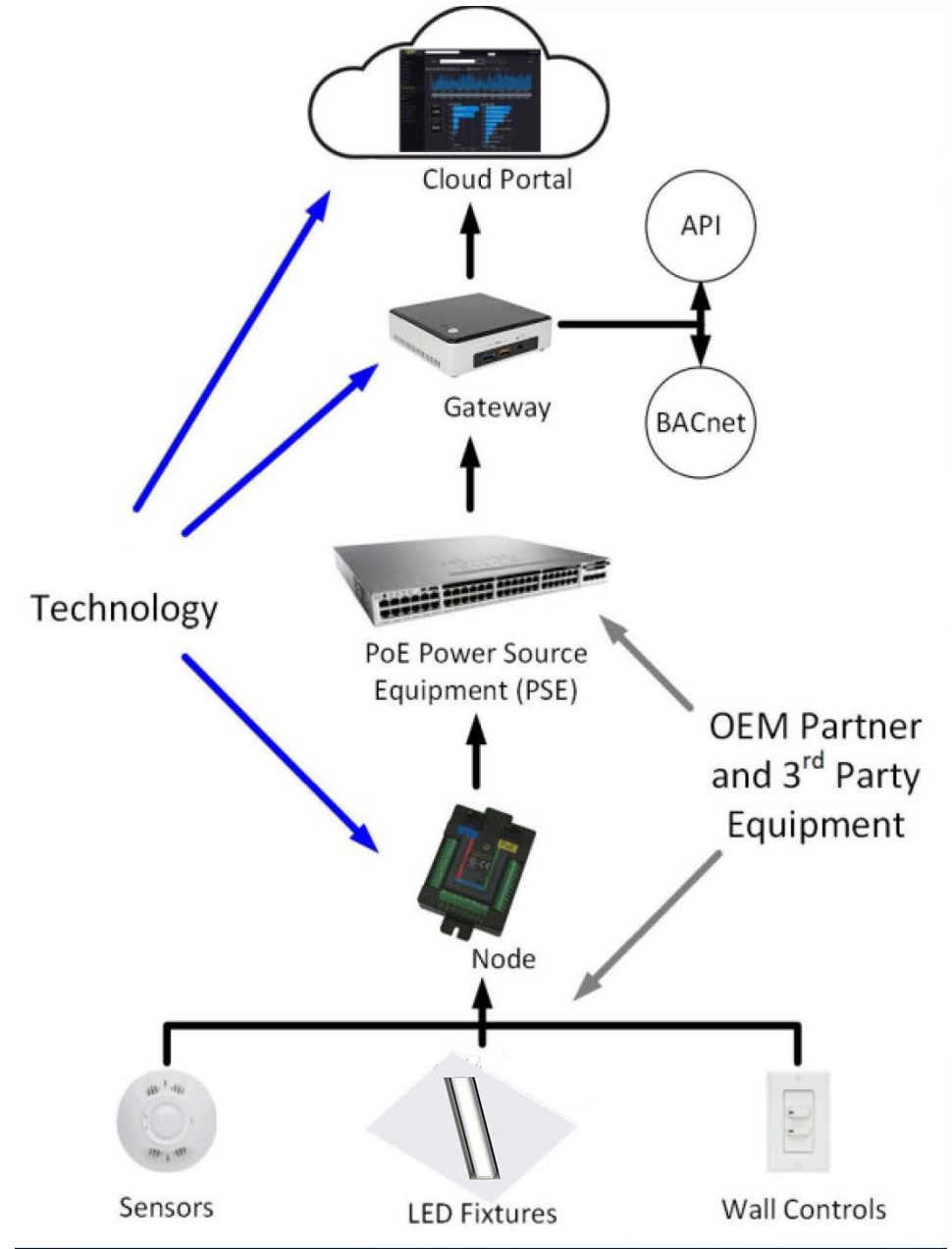
PoE & 4PPoE: 60-90W+ over 4-pairs





Smart Building Overview

- Cloud Portal with User Interface
- Gateway (PC)
- PoE Network Switch
- Network Capable Nodes
- Devices
 - LED Fixtures
 - Switches
 - Sensors
 - Motorized Shades
 - Etc.





City of Maricopa Lighting Upgrades



Before

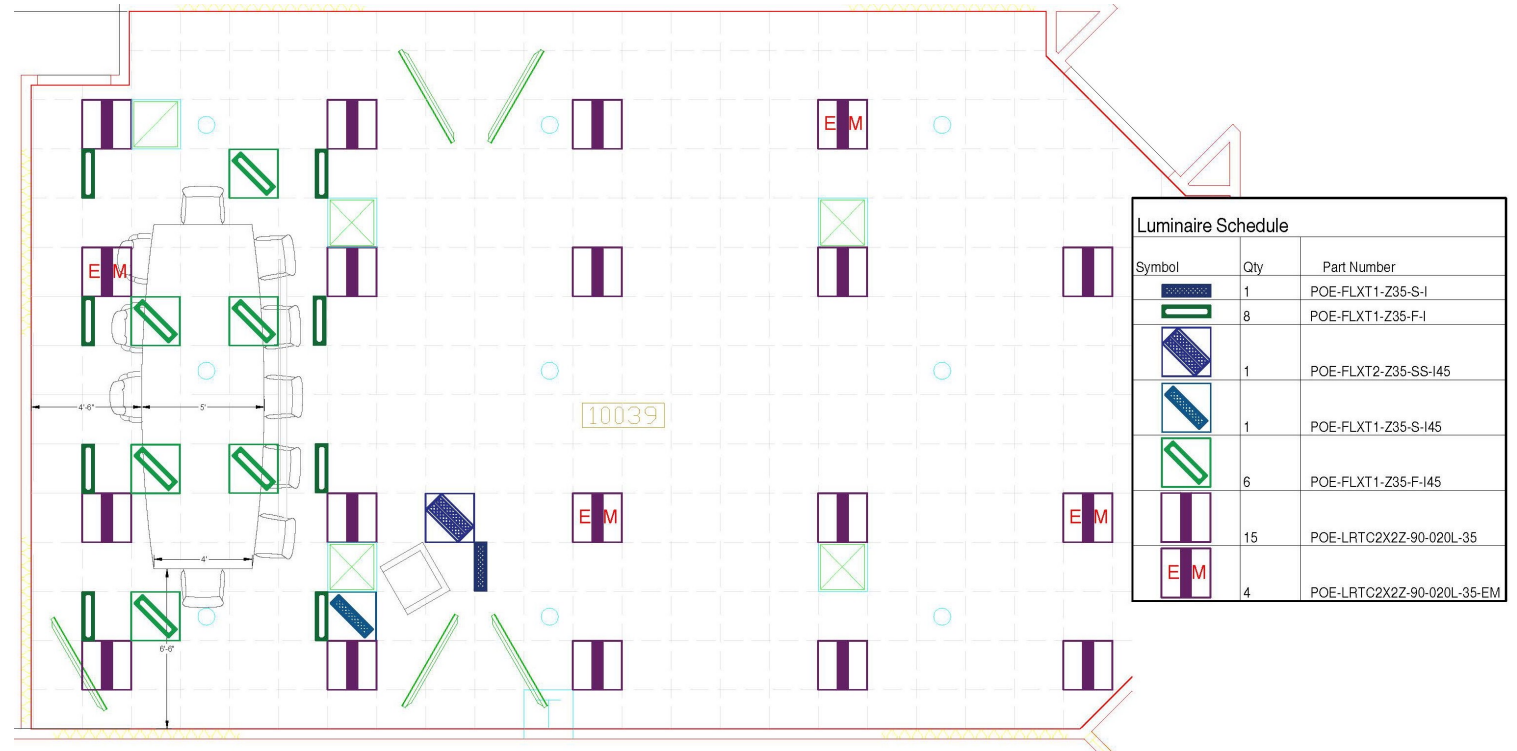


After



AutoCad Lighting Layout

- Based on the lighting task and ceiling conditions, the most efficient fixtures are chosen for design process.
- The light legend indicates the types of light fixtures selected in design and their prescribed accessories.
- The aesthetic of the lighting design placement becomes a cool architectural element.
- Brightline's AGI and rendering ability provides a realistic pre-example of installed results.





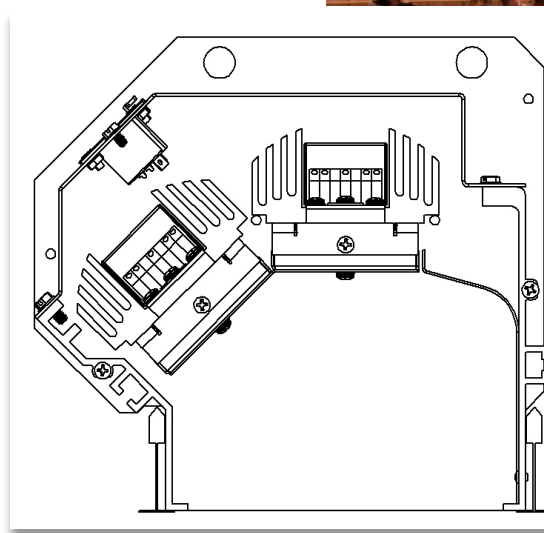
City of Maricopa with Lighting Upgrades





LED VideoPlus

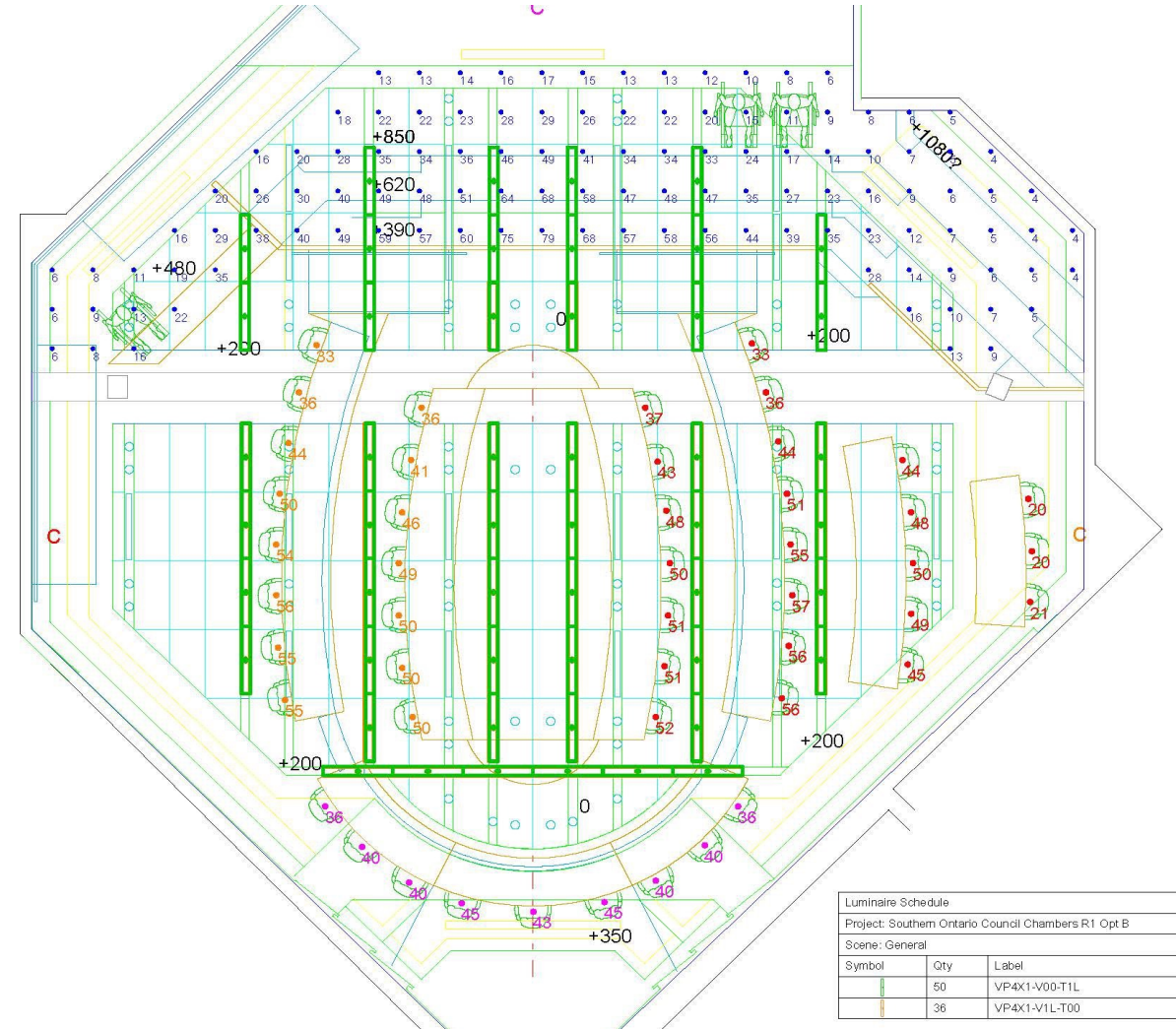
- Newly redesigned LVP offers enhanced performance and aesthetic utilizing the same high-rendering LEDs as the award-winning Flex-T.
- Multi-directional fixture provides task and video lighting from single 6-inch aperture.
- Available with one or two video light channels and task channel.
- Fin-light louver is integral to fixture.
- 2 or 4-ft lengths standard. Customizable to longer linear runs.





Lighting Levels – Designed in AGI 32

- The challenge at NRCC was to evenly light the dais and audience with unobtrusive linear fixtures.
- The VideoPlus provided an elegant solution that enabled beautifully even levels throughout the chambers.
- Every single chair has perfect vertical foot-candle levels for video optimization.
- The integrity of the room monitors and their critical content is well-maintained within this visually-comfortable environment.

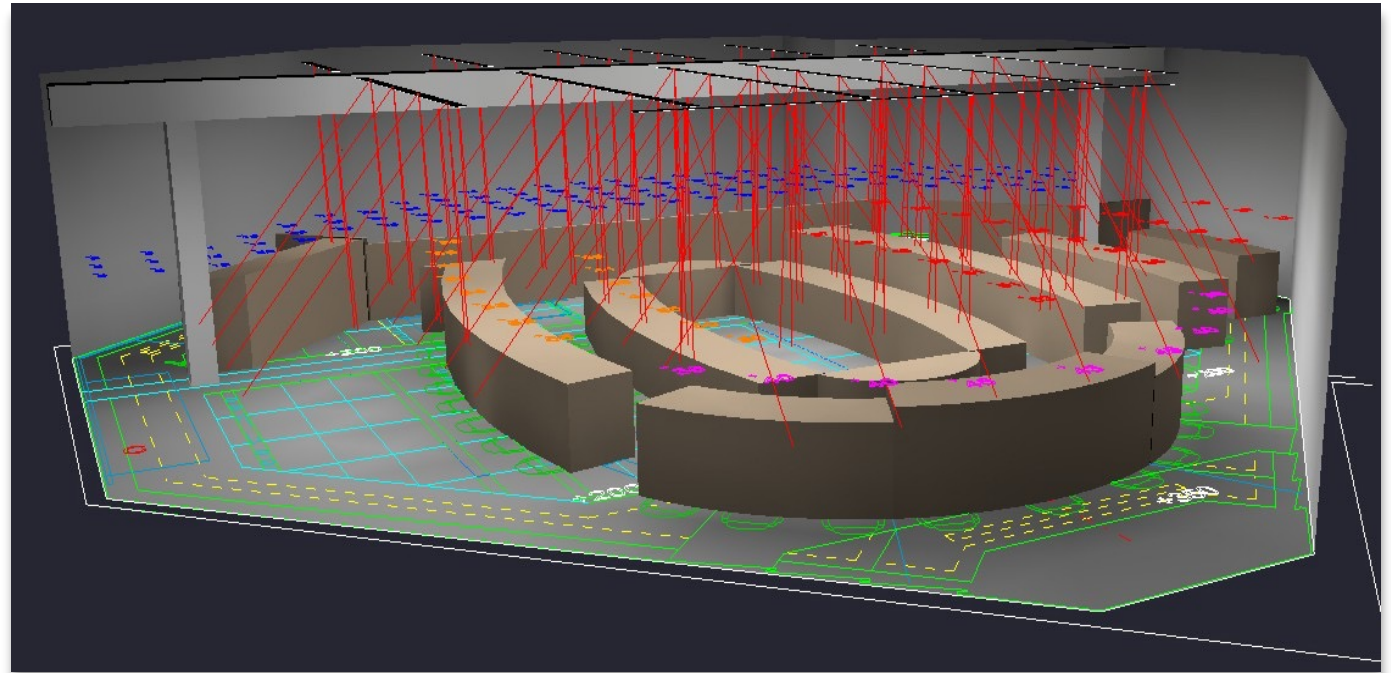




Niagara Regional Council Chambers

Lighting Rendering – Prepared in AGI 32

- AGI renderings enable Brightline design to check each beam angle to ensure that its direction is ideal.
- Design renderings allow ratios of foreground to background to be fine-tuned in advance of installation.
- Surface finishes can be imported into the design rendering program to further the accurateness of the virtual representation.
- Levels for each monitor and presentation device are reviewed to check for unwanted glare.





Niagara Regional Council Chambers with Lighting Upgrades





Uber ATG Conference Room



BEFORE



AFTER



Uber ATG

Room Rendering – Designed in AGI32

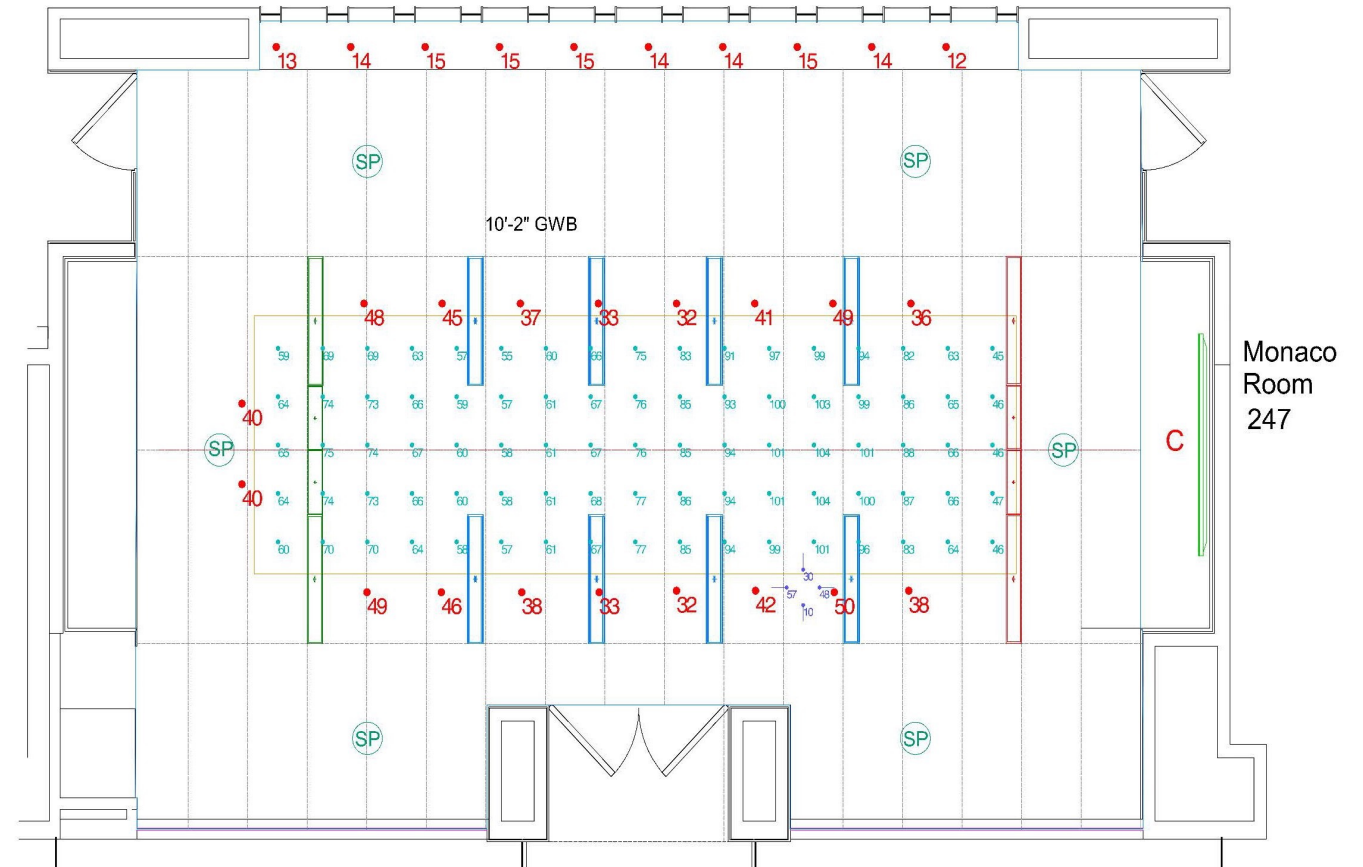
- Rendering used to show visual proof of concept.
- Shows how different fixture layouts will fit aesthetically in the space.





Lighting Levels – Designed in AGI 32

- Red numbers indicate vertical footcandles at face height, as participants look at the camera.
- Evenly distributed foot-candles at vertical face height match ideal IESNA target levels.
- The VideoPlus provided an elegant solution that enabled beautifully even levels throughout the room.





BL.16

16 High CRI LEDs provide a focused beam of light from longer distances

Great for lighting presenters in front of a Video Display or Chroma Key Wall

Available with DMX control and AC power switching that results in no wasted electricity when fixtures are not in use

One of the only LED fixtures available with Forward Phase dimming





City of Fargo Council Chambers Room Rendering – Designed in AGI 32

- Rendering used to show visual proof of concept.
- Shows how fixtures illuminate the presenter while not washing out displays.





City of Fargo Council Chamber with Lighting Upgrades





Brightline T-Series—
the most politically correct
representation in
The Simpsons' West Wing Story—



Lighting across the table
&
across the aisle in the
White House Situation Room
since 2006!



Thank You!

Google **Statoil**

Microsoft The Pentagon **Yahoo**

The White House *George W. Bush Library*

Goldman Sachs Carnegie Mellon University **Deloitte** **Fort Bragg**

Walt Disney Imagineering UCLA **Cisco** **Facebook**

Good Samaritan Hospital *Key Bank* IRS Bank of America

The Sinclair Broadcasting Group The Grossman Burn Center *Univision*

Federal Energy Regulatory Commission **Polycor** The United Nations

STANFORD UNIVERSITY Cornell University San Diego City Council

The University of Maryland **The Pittsburgh Steelers** *Blue Cross*

Harvard Medical School THE SHOP CHANNEL JAPAN Mapquest

Sony Broadcasting **The Game Network** **Youtube**

American Telemedicine Association USS HARRY S TRUMAN

BAKER HUGHES LIFESIZE

Lowe's Motor Speedway **CNN**



www.brightlines.com