

TRANSPARENT MEDIA FAÇADES

INTERWEAVING EXCELLENCE FROM CONCEPT TO COMPLETION



A Communication Canvas of Infinite Possibilities

GKD, the leading full service provider of woven metal fabric for architectural solutions worldwide, is also the innovator of transparent media façade technology. GKD's media façade offering includes two systems:

Mediamesh® and **Illumesh®**, both engineered and manufactured to exacting German standards.

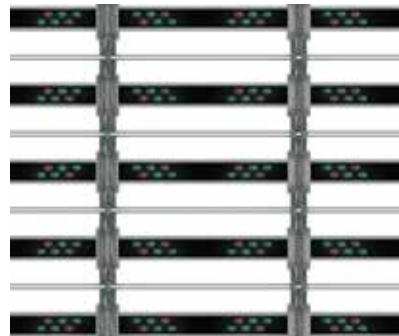
As the pioneer of this complex and state-of-the-art architectural solution, GKD has defined the parameters of the category implementing such critical factors as installation methodology, safety procedures and system variations.

Ideal for large-scale applications, GKD's Illumesh® illuminated metal fabric system allows system-integrated LED lighting to project light onto the reflective metal mesh surface creating a brilliant projection.

Since its introduction, GKD Mediamesh® has been embraced by the architectural community for its versatility and ability to enhance a façade. Through digital technology and the visual power of energy-efficient LEDs, everything from branding graphics to video, live broadcast to conceptual art, can be displayed on what has become the "silver screen" of the 21st century.



Illumesh®



Mediamesh®



WiaStar
WORLD CASINO

Transparent Media Façades

- Transform any building into a dynamic communications medium and are easily installed over any building surface, conforming to a structure's unique shape and design.
- Withstand climatic extremes including hurricane force winds, frigid cold and searing heat.
- Provide a clean viewing experience.
- Are made of GKD stainless steel architectural metal fabric with a profile less than 1" thick.
- Include GKD-designed screen, installation components and brackets for functionality and aesthetics.
- Shade the building and enable natural filtered lighting.
- Offer multiple viewing solutions that consider viewing distance, angles and resolution requirements for all conditions - balancing transparency and display resolution.
- Utilize superior electronic and LED technology.
- Are a turnkey solution with long term cost effectiveness and quick return on investment.

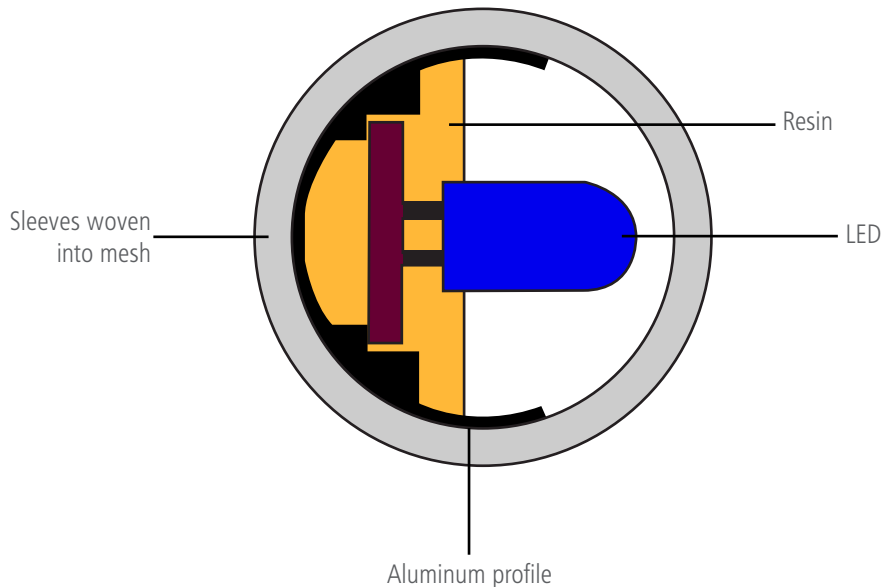


Transparent media façades allow natural views from inside out

Mediamesh® Offers

- A patented system of LED tubing integrated into robust stainless steel metal fabric.
- Exceptionally deep color palette and remarkable brilliance.
- Vertical resolution adjustable in 10 mm increments from 40 mm spacing and upward.
- Horizontal resolution standard at 50 mm pixel spacing.
- Daktronics technology and control system for graphics, animations, video clips and real-time data feeds.
- Automatically adjusted brightness to match lighting conditions using the Daktronics photocell system.

Construction Principle



LED profiles adjust downward up to 20 degrees to better target viewers from street level.

Product Benefits

Transparency

- Digital media platform with up to 60% transparency.
- Views of the building's unique architectural elements.
- Viewing from within the building to the outside.
- Natural daylighting and ventilation to the building surfaces.

Supergraphics Display

- Average installations approximately four times the size of traditional billboards.
- Larger format allows a longer and broader viewing range and greater message rotation.
- Supports a wide range of advertisers on one display without compromising graphic quality of the message.
- Dynamic media presentation will draw attention and transform a building into a media icon.
- Available in multiple versions selected and recommended to meet your needs.

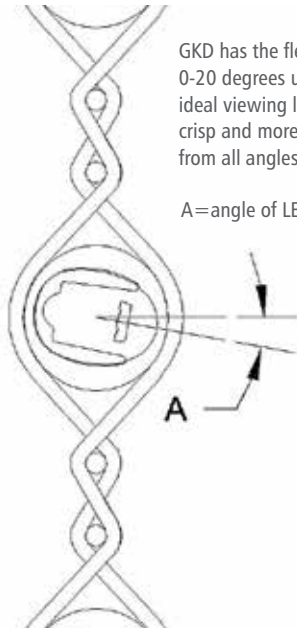


New York Port Authority Bus Terminal

Digital Electronic Format / LED / Angles

- Allows unlimited message delivery options.
- Quickly change out messages – advertiser can convey market conditions, promotions, news, weather.
- Real-time messages for live event delivery such as sporting or music events.
- Versatile advertising packages in an outdoor venue for specific time of day/week/season.
- Civic messaging – National Emergency, Amber Alerts, traffic or weather conditions.
- Bold performance both day and night.
- High quality LED's with more than 90,000+ hours of high performance.

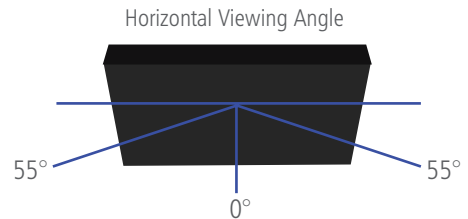
Viewing Angles



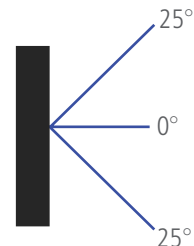
GKD has the flexibility to angle LEDs 0-20 degrees up or down, targeting the ideal viewing location. The result is clear, crisp and more color consistent images from all angles.

A=angle of LED tube

GKD teams with Daktronics to provide state-of-the-art transitions from indirect to direct viewing angles. Daktronics engineers anticipate “color shift” in all pixel design to assure clear, crisp, and consistent imagery.



Vertical Viewing Angle



Sustainability

- Uses as much as 80% less electricity than LED boards.
- Automatic LED luminance control adjusts light intensity for ideal viewing and significant energy reductions.
- Mesh provides passive insulation from sun for sunshading, daylighting and improved air circulation.
- Only replace LED lights after useful life, stainless steel mesh is re-used.

Visual Appeal

- Images appear to float on the surface of the building.
- Visual experience is fun, dynamic and engaging.
- Visual presentation creates curiosity and attracts attention.
- Powerful motion graphics and color.
- Elegant advertiser branding.



Illumesh® - Indemann

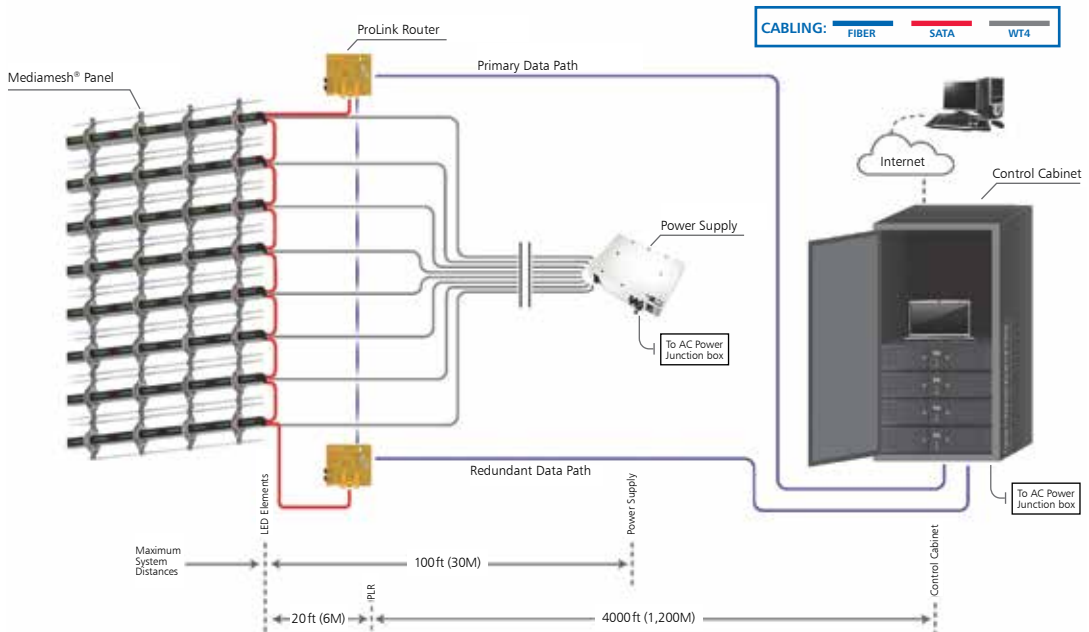


Mediamesh® - American Airlines Arena

System

Installation

GKD provides the complete system and package – including the installation. And, we can put you in touch with advertising and operations management to help you maximize content and revenue flow.

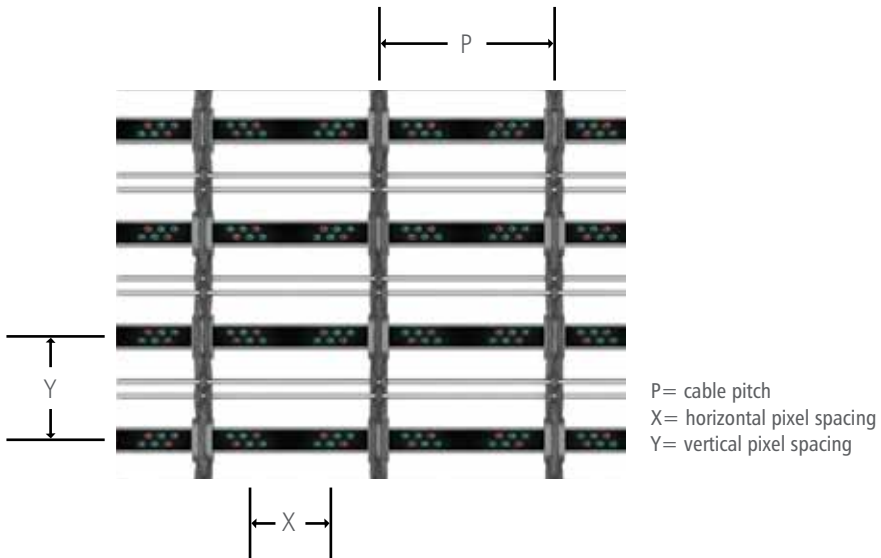


Specifications and Values

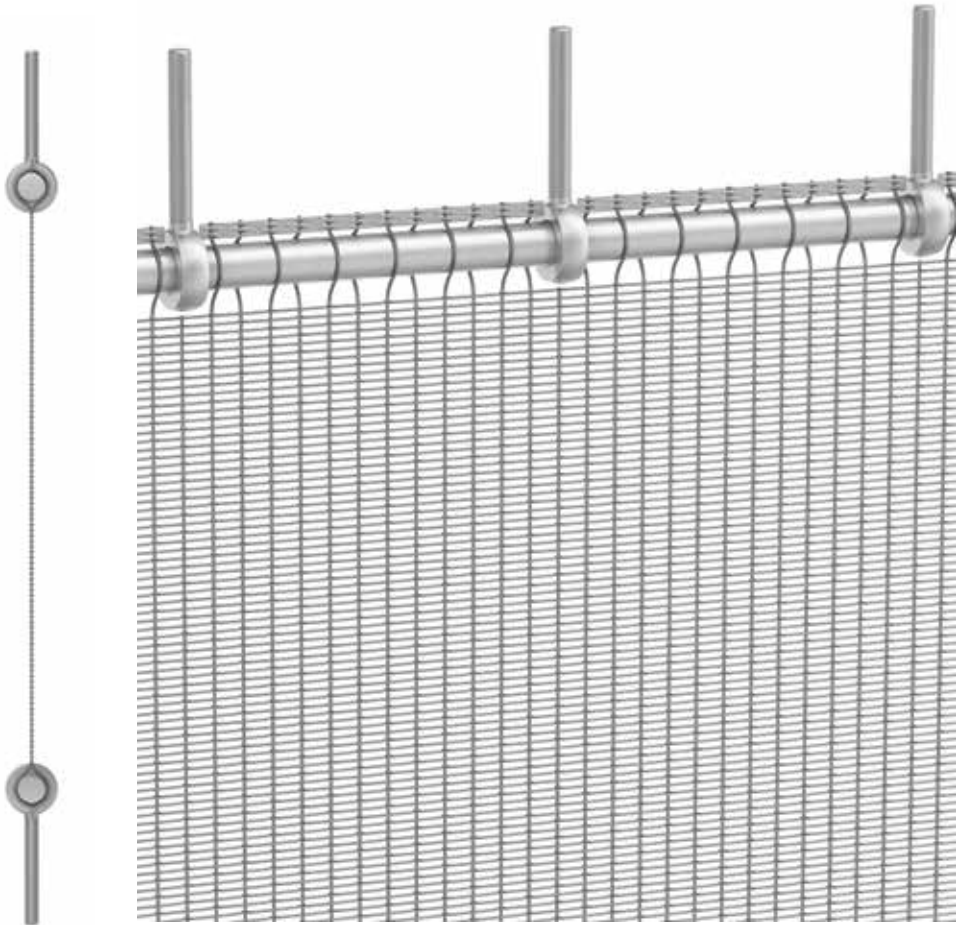
Tigris Stainless Steel Metal Fabric

Specification	V4xH5.0	V5xH5.0	V6xH5.0
Vertical LED Pitch	40mm	50mm	60mm
Horizontal LED Pitch	50mm	50mm	50mm
NITs	8750 NITs	7000 NITs	5833 NITs
Open Area	56.2%	58.1%	59.4%
Viewing Distance	35m/115ft	35m/115ft	42m/138ft
Weight lbs per ft ²	1.9	1.77	1.7
Rods between LED Tubes	1	2	3

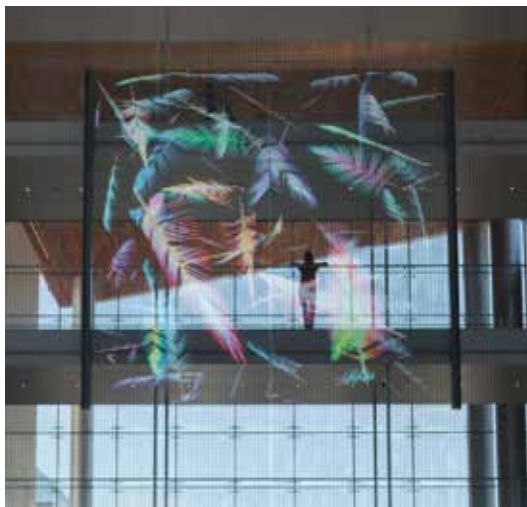
*table data November 2013



Attachment Systems



GKD pioneered a range of attachment systems including woven-in bar with eyebolt, shown here. Attachment method takes into consideration specific application, panel size, structural characteristic, scale and design concept.



LONG BEACH COURT BUILDING

LONG BEACH, CALIFORNIA

Artist Jennifer Steinkamp's work, *Murmuration*, is featured using Mediamesh® to accomplish art in motion. This artistic work connects to a multi-story safety barrier of Tigris metal fabric.

Owner: State of California AOC

Architect: AECOM

Dimension: 25.7 ft. wide x 24 ft. high

Total Area: 4,700 ft², 615 ft² Mediamesh®

Total Pixel: 33,856 Px

Pixel Pitch: Ver. 40mm / Hor. 42.5mm

Facade Direction: Indoor / East

Brightness: 9,100 NITs

Completion: August 2013



MELLON INDEPENDENCE CENTER

PHILADELPHIA, PENNSYLVANIA

Mediamesh® was selected to help modernize the rooftop signage of the historic Lit Brothers Department Store.

Owner: A2a Media, LLC

Architect: Stantec

Dimension: 359 ft. wide x 14.33 ft. high

Total Area: 5,145 ft.²

Total Pixel: 280,566 Px

Facade Direction: Outdoor

Brightness: 11,100 NITs

Completion: Phase 1 January 2015



COOK CHILDREN'S HOSPITAL

FORT WORTH, TEXAS

The parking garage at the Cook's facility utilizes Mediamesh® to post art and positive messaging to arriving and departing employees and to the public passersby.

Owner: Cook Children's Health Care System

Architect: HKS

Dimension: 16.6 ft. wide x 65 ft. high

Total Area: 1,045 ft.²

Total Pixel: 57,600 Px

Pixel Pitch: Ver. 40 mm / Hor. 42.5 mm

Facade Direction: Outdoor

Brightness: 8,400 NITs

Completion: 2014



CLEVELAND INSTITUTE OF ART (CIA)

CLEVELAND, OHIO

CIA loved the artistic qualities of Mediamesh® and felt it was perfect for the application. The majority of the content will be related directly to CIA events and the artwork of the students and alumni.

Owner: Cleveland Institute of Art

Architect: Stantec

Dimension: 29.5 ft. wide x 52.6 ft. high

Total Area: 1,550 ft.²

Total Pixel: 71,680 Px

Pixel Pitch: Ver. 40 mm / Hor. 50 mm

Facade Direction: Outdoor/Southwest

Brightness: 8,750 NITs

Completion: 2015



ATELIER A TORCÉ

TORCÉ, FRANCE

Illumesh® transformed the façade of this facility from a dull structure to an ever-changing display of light and color.

Owner: Communauté Vitré

Architect: H.C. Nestor, Chateaubourg

Dimension: 48.6 ft. wide x 22.6 ft. high

Total Area: 1,098 ft.²

Total Pixel: 1,490 Px

Pixel Pitch: Ver. 660mm / Hor. 100mm

Facade Direction: Outdoor / East

Brightness: 132 NITs

Completion: June 2007



INDEMANN OBSERVATION TOWER

INDEN, GERMANY

The transparent skin of this 118-foot tower features 40,000 interwoven LEDs that create a spectacular light show.

Owner: GIS Dueren GmbH

Architect: Marc Maurer, Maastricht

Total Area: 15,800 ft.² Illumesh®

Total Pixel: 8,131 Px

Pixel Pitch: Ver. 2000mm / Hor. 100mm

Facade Direction: Outdoor / All

Brightness: 48 NITs

Completion: August 2009



AMERICAN AIRLINES ARENA

MIAMI, FLORIDA

Miami's Mediamesh® marquee, the largest in the southeast, displays concert and game footage in the plaza, creating a public gathering space.

Owner: AA Arena / Heat Group

Architect: ADC, Florida / ag4, Colgne

Dimension: 80 ft. wide x 42 ft. high

Total Area: 3,360 ft.²

Total Pixel: 147,806 Px

Pixel Pitch: Ver. 50mm / Hor. 42.5mm

Facade Direction: Outdoor / West

Brightness: 6,588 NITs

Completion: May 2009



CHECKPOINT CONSOLIDATION

MINNEAPOLIS SAINT PAUL INTERNATIONAL AIRPORT

Mediamesh® display informs customers of checkpoint status and eventually waiting times to pass through security.

Owner: Metropolitan Airport Commission, Minnesota

Architect: Alliance, Minnesota

Dimension: 2 displays / 17ft. wide x 17ft. high

Total Area: 578 ft.²

Total Pixel: 13,000 Px

Pixel Pitch: Ver. 40mm / Hor. 50mm

Facade Direction: Indoor / North & South

Brightness: 8750 NITs

Completion: February 2016



OPEL EXHIBITIONS

EUROPE

At high profile auto exhibitions, Opel cars are dynamically featured in a continuous flow of colors.

Owner: XL Solutions, Duesseldorf

Architect: Bellprat Associates

Dimension: 133 ft. wide x 15.8 ft. high

Total Area: 9,843 ft.²

Total Pixel: 46,102 Px

Pixel Pitch: Ver. 60mm / Hor. 60mm

Facade Direction: Indoor

Brightness: 553 NITs

Completion: April 2007



PORT AUTHORITY BUS TERMINAL

NEW YORK CITY, NEW YORK

A forgettable building becomes a model of modern technology with the world's largest transparent media façade.

Owner: Port Authority

Architect: A2a Media

Dimension: 169 ft. wide x 35.5 ft. high

Total Area: 6,000 ft.²

Total Pixel: 256,800 Px

Pixel Pitch: Ver. 50mm / Hor. 42.5mm

Facade Direction: Outdoor / South

Brightness: 4,730 NITs

Completion: June 2011



WINSTAR WORLD CASINO

THACKERVILLE, OKLAHOMA

The world's third largest casino is the first Mediamesh® installation using state-of-the-art LEDs in a six-pixel cluster.

Owner: Chickasaw Nation

Architect: Michael Huff, Chickasaw Nation

Dimension: 90 ft. wide x 30 ft. high (2)

Total Area: 5,400 ft.²

Total Pixel: 196,000 Px

Pixel Pitch: Ver. 60mm / Hor. 42.5mm

Facade Direction: Outdoor / North and West

Brightness: 6,500 NITs

Completion: January 2012



HENRY MADDEN LIBRARY

FRESNO, CALIFORNIA

Mediamesh® became the canvas of the modern artist with this art installation by Susan Masduli.

Owner: California State University

Architect: Narduli Studio

Dimension: 16.6 ft. wide x 32 ft. high

Total Area: 531 ft.²

Total Pixel: 14,028 Px

Pixel Pitch: Ver. 60mm / Hor. 60mm

Facade Direction: Indoor / West

Brightness: 1940 NITs

Completion: December 2008



NCSU Talley Student Center

RALEIGH, NORTH CAROLINA

College spirit gets a boost with Mediamesh at the North Carolina State University in Raleigh North Carolina.

Owner: North Carolina State University

Architect: Duda Paine Architects

Dimension: 17.85 ft. high x 31.5 ft. wide

Total Area: 565 ft.²

Total Pixel: 26,112 Px

Pixel Pitch: Ver. 40mm / Hor. 50mm

Facade Direction: Outdoor / Northwest

Brightness: 8750 NITS

Completion: 2015



ETON PLACE

DALIAN, CHINA

Mediamesh[®] transformed the façade of the shopping mall at the Eton Center in Dalian, China into a dual LED media façade with artistic animations and large-scale advertising.

Customer: Eton, Dalian

Architect: NBBJ

Dimension: 4 Screens 34 ft. tall by various widths

Total Area: 4,900 ft.²

Total Pixel: 177,276 Px

Pixel Pitch: Ver. 50mm / Hor. 50mm

Facade Direction: Outdoor / Variable

Brightness: 7.000 NITS

Completion: 2015



BMW BRAND EXPERIENCE CENTER

SHANGHAI, CHINA

The BMW showroom in Shanghai has been equipped with an indoor Mediamesh display.

Customer: BMW

Dimension: 50 ft. wide x 12.4 ft. high

Display Area: 620 ft.²

Total Pixel: 23,040 Px

Pixel Pitch: Ver. 50mm / Hor. 50mm

Orientation: Indoor

Brightness: 3200 NITs

Completion: 2014



Tripoli International Congress Hall

TRIPOLI, LIBIA

Besides individually created content, live events, conferences and movies are shown in Tripoli.

Customer: System Insaat Ltd. Sti

Architect: Tabanlıoğlu Architects, Istanbul

Dimension: 95.1 ft. wide x 39.4 ft. high

Total Area: 3747 ft.²

Total Pixel: 204,900 Px

Pixel Pitch: Ver. 40mm / Hor. 42.5mm

Facade Direction: Outdoor / East

Brightness: 4956 NITs

Completion: 2010



HAMAD INTERNATIONAL AIRPORT

DOHA, QATAR

The first transparent media façade made of stainless steel mesh in the Middle East.

Customer: SkyOryx JV

Architect: HOK, San Francisco

Dimension: 4 screens; (2) 2850 ft.² and (2) 2350 ft.²

Total Area: 10,400 ft.²

Total Pixel: 390,160 Px

Pixel Pitch: Ver. 50mm / Hor. 50mm

Facade Direction: Indoor

Brightness: 2500 NITs

Completion: 2014/2015



VCU JAMES BRANCH CABELL LIBRARY

RICHMOND, VIRGINIA

School spirit and school business headline this Mediamesh transparent media façade.

Owner: Virginia Commonwealth University

Architect: Moseley Architects

Dimension: 20.9 ft. wide x 18.25 ft. high

Total Area: 382 ft.²

Total Pixel: 18,432 Px

Pixel Pitch: Ver. 40mm / Hor. 50mm

Facade Direction: Indoor facing exterior / North East

Brightness: 8,750 NITs

Completion: 2016



ARIZONA CENTER FOR LAW & SOCIETY

PHOENIX, ARIZONA

Transparent media façade and solar shading in one at ASU.

Owner: Arizona State University (ASU)

Architect: Ennead Architects

Dimension: 26.2 ft. wide x 28.74 ft. high

Display Area: 753 ft.²

Total Pixel: 35,200 Px

Pixel Pitch: Ver. 40mm / Hor. 50mm

Facade Direction: Outdoor / South

Brightness: 8,750 NITs

Completion: 2016



UNIVERSITY OF COPENHAGEN

DENMARK

The content of this media façade focuses on photorealistic presentations of nature and homeland.

Owner: The Danish Building and Property Agency

Architect: Arkitema Architects

Dimension: 24.25 ft. wide x 40 ft. high

Total Area: 970 ft.²

Total Pixel: 56,376 Px

Pixel Pitch: Ver. 37.5mm / Hor. 42.5mm

Facade Direction: Outdoor

Brightness:

Completion: 2015

Architects World-Wide Recognize GKD as the Authority on Metal Fabric Solutions

From concept to completion and every step in between, GKD Metal Fabrics is a service driven company. Following an efficient design-to-build process that leverages collaborative project engineering, GKD consistently anticipates its clients' needs and exceeds their expectations.

To serve clients' unique requirements, GKD Metal Fabrics proudly offers a variety of installation service options.

- **Instruction and Drawings:** GKD Metal Fabrics provides suggestions, sketches or drawings and offers the client the option of having their own contractor complete installation.
- **Supervisory Oversight:** GKD Metal Fabrics provides supervision on a contractual basis to ensure the smooth implementation of the installation plan. On-site troubleshooting is available if necessary.
- **Supervision and Installation:** Once the substructure is prepared for the metal fabric, GKD Metal Fabrics takes the lead on the product's complete installation. GKD Metal Fabrics takes pride in the fact that it is the only company in the U.S. that manufactures and installs GKD metal fabric.
- **Maintenance:** Media façade maintenance is infrequent and typically minimal. The façade requires a simple mechanical washing to eliminate natural contaminants and maintain display brightness. Factors such as heat, operating intensity, corrosives, and operating durations will affect the life of the façade but LED life is typically estimated in the 10 year or 90,000 hour range. GKD is available to inspect and service a façade as required.
- **Warranty:** GKD offers a complete warranty on all parts and components for the first year of installation. Additional coverage terms are available up to 5 years from realization of the project.





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