LightFrame®

decoustics®

Aluminum profile frame

Spline

ETFE clear foil back

PVDF Fabric

Cog-wheel bolt

DESIGN AND SPECIFICATIONS

Description

LIGHTFRAME is an accessible translucent fabric ceiling and wall system. It provides light transmission rates up to 83% and NRC values up to 0.9. The precision monofilament fabric optimizes artificial or natural light transfusion without any color shift, giving even light illumination. Extremely narrow seams and an elliptic profile ensure illuminated surfaces are practically shadow-free.

Unique finishing and coating techniques ensure UV durability without fading, while the materials remain extremely tough and long-lasting. All fabrics used in LightFrame panels are rated Class A according to ASTM E84, and carry a limited10 year warranty.

Panels

The LightFrame consists of single panels that can be installed in either butt joint or reveal layouts. LightFrame panels feature stretched fabric construction that is secured in the aluminum frame with a spline. The rear of the panel is faced with a clear or opaque thin film or an additional layer of fabric to optimize light transmission and acoustic properties.

Size

Panels are custom manufactured to suit project installations. The optimal maximum panel width is 1.5m (5ft) and optimal maximum length is 3m (10ft). Depending on the selected LightFrame construction, available fabric width and site accessibility that may limit the maximum available panel size.

Perimeter

Decoustics offers an extruded aluminum pre-machined perimeter that precisely mates with LightFrame panels. The perimeter is non-structural and must be affixed to a rated structural component in the building (by others).
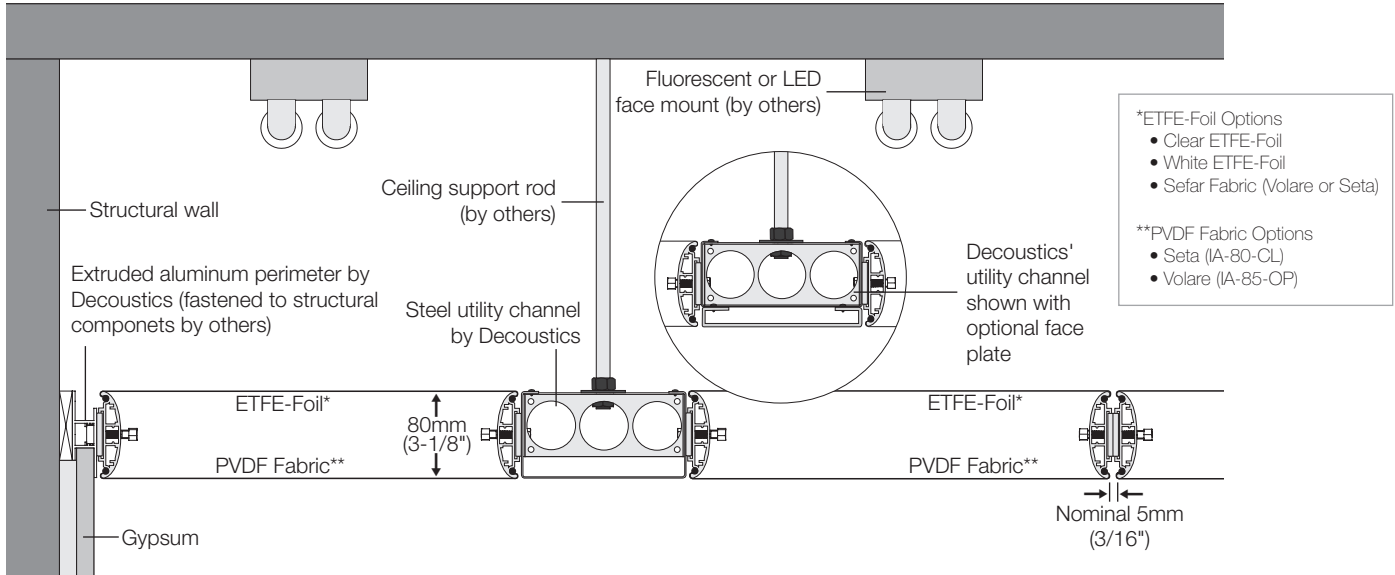
All perimeter structures must be engineered and meet all local codes. It is essential that the perimeter be designed by a qualified engineer. Typical materials to construct the structural perimeters include: structural steel shapes (consisting of angles, square profile, channels, S and W shapes), aluminum tubes (including square and rectangular shapes) and engineered wood structures. The LightFrame ceiling system accommodates the installation of sprinkler heads, lighting and air diffusers by incorporating these elements into utility channels which are part of the ceiling design.

Utility Channel

Decoustics' utility channels are custom designed and engineered to work with LightFrame panels. Custom machining ensures that all connections between the LightFrame panels and the utility channel align allowing for easy and accurate installation. All utility channels are fabricated to suite the project installation. Penetrations in the utility channel are available at additional costs. All standard utility channels feature a white finished face, an optional face plate is available.

Installation Details

*ETFE-Foil Options
• Clear ETFE-Foil
• White ETFE-Foil
• Sefar Fabric (Volare or Seta)

**PVDF Fabric Options
• Seta (IA-80-CL)
• Volare (IA-85-OP)

Aluminum profile frame connection between two LIGHTFRAME panels is made using cog-wheel bolt technique

Acoustical Data (ASTM C423: Type E400 Mounting as per ASTM E795).

FINISH		FREQUENCY (Hz)						NRC	SAA
		125	250	500	1000	2000	4000		
Volare (IA-85-OP)	Fabric to Foil	0.78	0.55	0.47	0.80	0.64	0.59	0.60	0.57
Volare (IA-85-OP)	Fabric to Fabric	0.88	0.76	0.74	0.91	0.74	0.72	0.80	0.78
Seta (IA-80-CL)	Fabric to Foil	0.91	0.79	0.53	0.77	0.79	0.75	0.70	0.67
Seta (IA-80-CL)	Fabric to Fabric	0.94	0.89	0.80	0.98	0.96	1.07	0.90	0.90

Light Technology

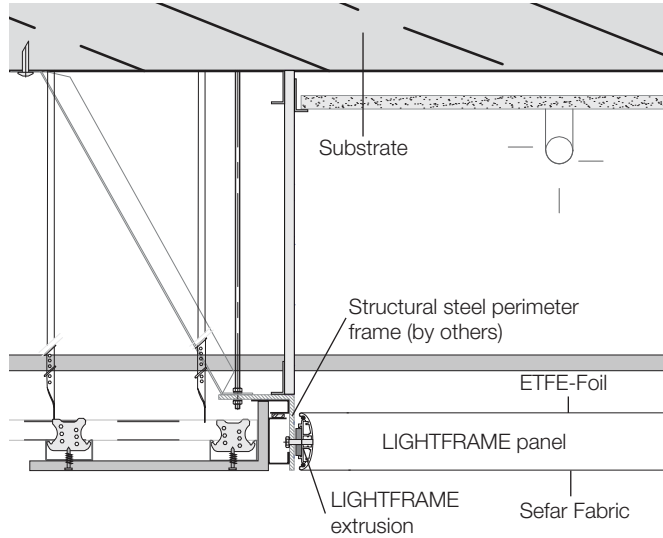| FINISH	Light transmission			Footcandles at 3ft.								
				Fluorescent strips 4ft/28W			Fluorescent strips 5ft/49W			Fluorescent strips 5ft/80W		
	Fabric and opaque foil (%)	Fabric and translucent foil (%)	Fabric and fabric (%)	Fabric and opaque foil	Fabric and translucent foil	Fabric and fabric	Fabric and opaque foil	Fabric and translucent foil	Fabric and fabric	Fabric and opaque foil	Fabric and translucent foil	Fabric and fabric
Volare (IA-85-OP)	26	83	72	15	31	27	25	51	45	30	60	54
Seta (IA-80-CL)	24	78	64	15	30	27	25	50	44	30	59	53

Note: The information provided in this Data Sheet is accurate to the best of our knowledge at the time of printing. However, we reserve the right to make changes when necessary without further notification. Suggested applications may need to be modified to conform with local building codes and conditions. We cannot accept responsibility for products that are not used, or installed, to our specifications. Please refer to our website for most current data.

Note: Only handle panels wearing clean, lightweight, white gloves during installation. Follow manufacturer's printed instructions for installation as well as field cutting of panels.
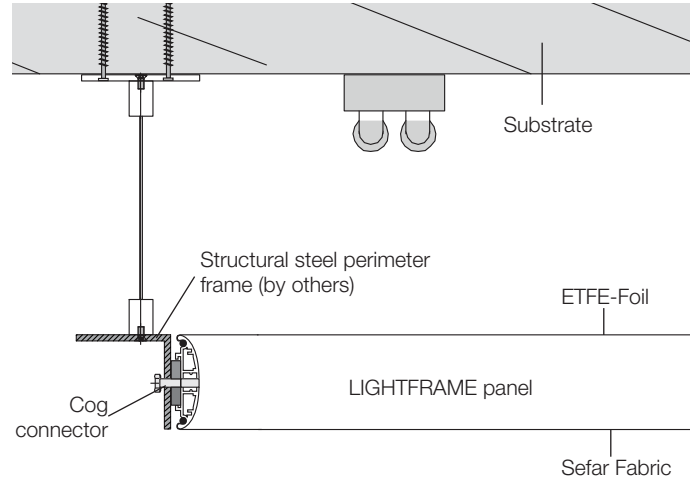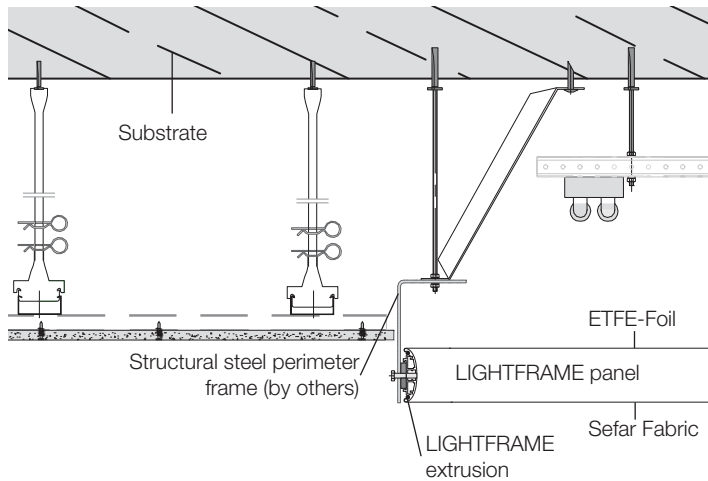
Typical Details

Typical LIGHTFRAME Recessed Light Detail

Substrate

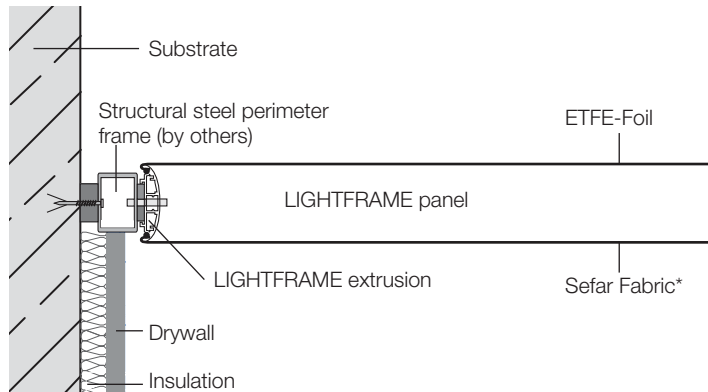Structural steel perimeter frame (by others)

ETFE-Foil

LIGHTFRAME panel

LIGHTFRAME extrusion

Sefar Fabric

Typical LIGHTFRAME Cloud Installation Detail

Substrate

Structural steel perimeter frame (by others)

ETFE-Foil

LIGHTFRAME panel

Cog connector

Sefar Fabric

Typical LIGHTFRAME Floating Installation Detail

Substrate

Structural steel perimeter frame (by others)

ETFE-Foil

LIGHTFRAME panel

Sefar Fabric

LIGHTFRAME extrusion

Typical LIGHTFRAME Cloud Installation Detail

Substrate

Structural steel perimeter frame (by others)

ETFE-Foil

LIGHTFRAME panel

LIGHTFRAME extrusion

Sefar Fabric*

Drywall

Insulation

Incorporating LIGHTFRAME and Ceilencio Ceiling Suspension System

LIGHTFRAME to Claro® Panel Detail

- Linear diffuser (not by Decoustics)
- Wall
- G Grid member
- Claro panel
- G Grid member
- Sefar Fabric*
- ETFE-Foil*
- Continuous thick steel angle LIGHTFRAME support frame
- ETFE-Foil*
- Sefar Fabric*
- G Grid member
- G Grid member
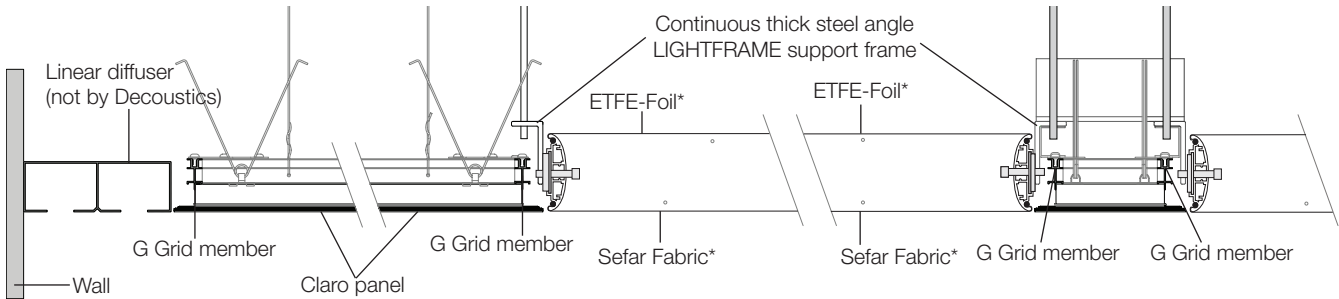
Performance Data

FABRIC	FABRIC CHARACTERISTICS	SIZES	CONSTRUCTION	THICKNESS	NRC	WEIGHT	COLOR
Seta (IA-80-CL) Volare (IA-85-OP)	• PVDF (polyvinylidene fluoride) • Odor free and dirt resistant • Low VOC and free of plasticizers • Chemically inert • Non-yellowing, color fast • High resistance to acids and alkalis • UV and weather resistant • 10 year warranty on fabric • Class A flame spread rating when tested in accordance with ASTM E84	Maximum panel width is governed by the fabric width. Maximum length is 3m (10ft)	LIGHTFRAME consists of single panels that can be installed in either butt joint or reveal layouts. The frames are tightly spanned with fabric and secured with a spline. A second layer is attached to the reverse side of the frame to optimize the light transmission and acoustic properties. This layer is either a clear or white ETFE-foil, or a second layer of SEAR fabric.	3-1/8" (80mm)	Refer to NRC values listed on page 2	approx. 20lbs for a 5'x5' panel and 30lbs for a 5' x 10'	Seta and Volare are white fabrics

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SAINT-GOBAIN

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