

Frost Bank Tower, Austin, TX

Style F151
lensed wet
location T8
fluorescents
mounted
vertically
behind
translucent
glass



PATRICK WONG

Design Architect: Duda Paine, Durham, NC.
Managed by Cousins Properties
Architect of Record: HKS Architects, Dallas, TX
Lighting Design: Cline Bettridge Bernstein
Lighting Design
Photography: Atelier Wong Photography ©2006
and Erik Peterson

Backlighting Glass Screens

Lighted Width: Approx. 18' at center (two 9' sections), 12' at sides
Overall Height: Approx. 52'
Lighting: (48) F151-A232-H-07-2-000, 2x32W T8 fluorescent, remote ballast, in eight vertical rows of six nom. 8' luminaires
Target average illuminance on back of glass: 25 fc maintained

elliptipar®
there is no equal™ 

elliptipar Style F151 Backlighting Glass

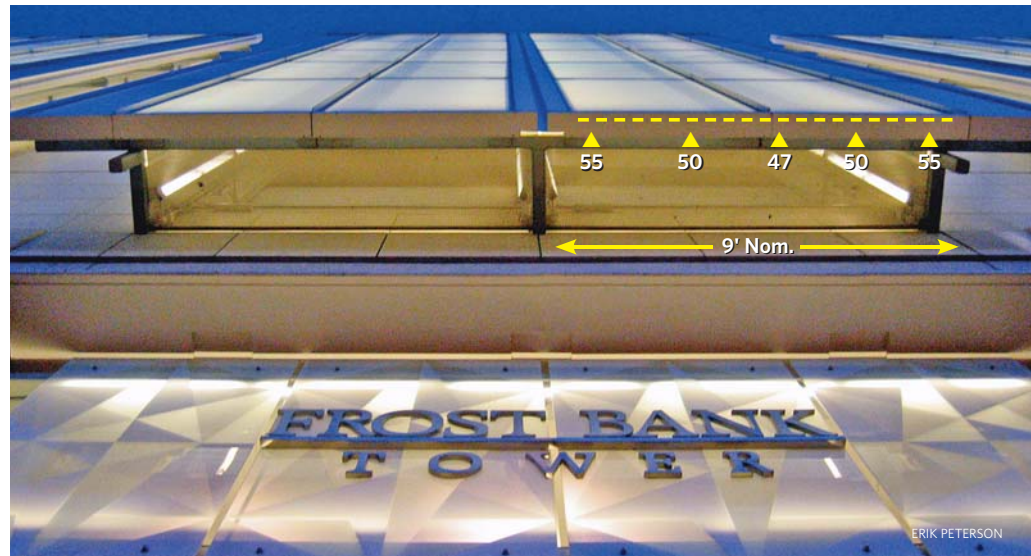
There are two approaches to making glass glow – direct and indirect. Determining which technique is most appropriate depends on the density or translucency of the glass (i.e., its “hiding power”) and the nature of the surfaces behind it (if any).

At Frost Bank, Cline Bettridge Bernstein Lighting Design uses the direct technique, washing light across the back side of the 5-story screens that conceal open garage levels above the lobby entrances. A “dense” laminated glass was selected to prevent seeing distinct images of the luminaires/lamp sources. Adequate setback was provided to ensure that the majority of light striking the back of the glass is transmitted rather than reflected, which occurs when the angle of incidence is too shallow.

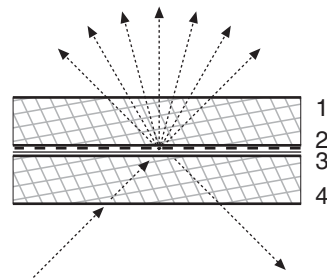
With direct lighting, care must be taken to minimize shadows on the glass from structural framing. At Frost, lighting from both sides of the bays minimizes shadows from the center mullions.

When the glass is lightly diffuse and/or the setback is limited, the indirect method may prove more successful. In that case, light is directed back onto a light colored surface behind the glass. The resulting “glow” is actually a view through the glass of the lighted surface beyond.

With either method, a mock-up is always the best insurance for success.



Values shown are Initial footcandles, direct component only.



Panels are 9/16" laminated glass set in prefinished aluminum frames:

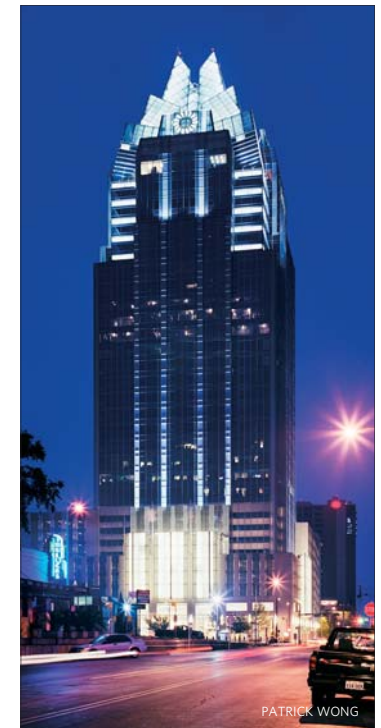
- 1 1/4" clear glass
- 2 white ceramic frit pattern
- 3 white PVB interliner
- 4 1/4" clear glass

Nominal light transmittance is 32%.



The project was awarded an IALD Award of Merit and Architectural Lighting Magazine's Light & Architecture Commendable Achievement Award

A small cross-section reflector for T5 or T8 fluorescent featuring durable aluminum construction – extruded reflector, die-cast end plates, machined hubs. A snap-on impact and UV resistant acrylic lens with EPDM gasket is watertight for all orientations. Electrostatically applied thermoset polyester powder coat finish exceeds 1000 hour exposure (ASTM B117-90 Salt Spray [Fog] test).



Layered lighting reinforces Frost Bank's design by weaving together its base, tower, and top. Above the glass screens, 4200K sources highlight vertical and horizontal bands. The faceted glass crown is also backlit using shielded metal halide floodlights. This attention to transition leads the eye seamlessly from bottom to top.