

SKYLINE DIFFUSER



- Interfering reflections can be controlled by absorption or diffusion.
- In small rooms, it is often desirable to control interfering reflections and provide an ambient sound field using diffusion instead of absorption.
- When the room's surfaces are relatively close to the listener, a very efficient diffusing surface is needed.
- The Skyline scatters incident sound uniformly so that the acoustic glare in all directions is minimized.

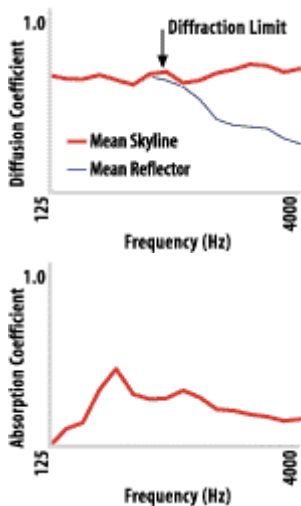
Problem

Small rooms like Project Studios need a very efficient surface to diffuse interfering rear wall reflections and provide a diffuse sound field.

Solution

To solve this problem, the skyline utilises advanced primitive root number theory to produce the most powerful and aesthetic two dimensional omnidirectional diffusing surface in the acoustical industry.

Performance

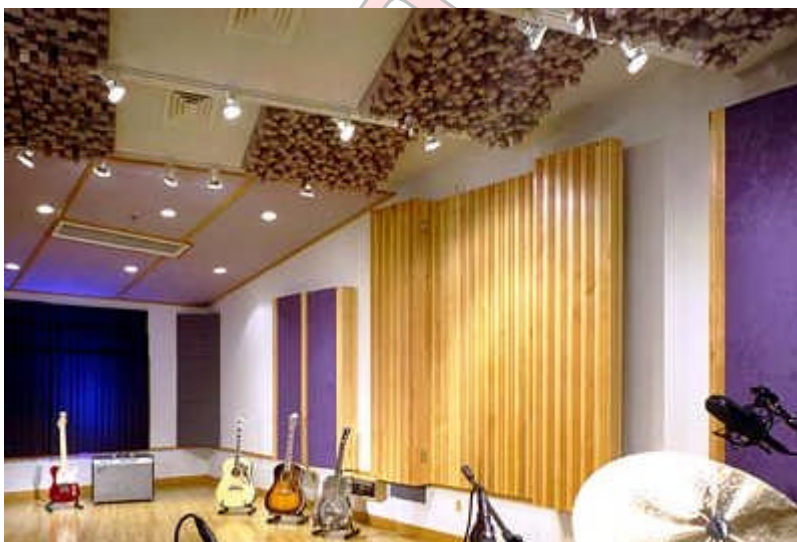


Diffusion

The uniformity of diffusion is characterized by the standard deviation of the 1/3 octave polar response, for a given angle of incidence. For each of the 37 angles of incidence, 37 backscattering impulse response measurements are made at 5° increments between 0° and 180°. The Diffusion Coefficient is the mean standard deviation for all angles of incidence, normalized to the standard deviation of a delta function (1 equals ideal diffusion). The data illustrate the exceptional uniformity of diffusion above the diffraction limit ($565 \text{ Hz} = 1130 \text{ ft/sec}/2'$), which is related to the dimension of the panel. The Diffusion Coefficient of a flat reflective panel is shown for comparison.

Absorption

The solid expanded polystyrene core of the Skyline provides useful low frequency absorption.



Installation

The Skyline is very easy to install on walls or ceilings using either construction adhesive or the supplied hook and loop fasteners. Apply both sides of the hook and loop fastener to the rear of the Skyline in each corner on a flat area. Remove the protective paper from the exposed side and apply to the wall.

For permanent mounting you may wish to also apply construction adhesive along with the hook and loop. Skylines can also be inserted into a T-bar ceiling grid.

Be sure to apply all Skylines in the same orientation.