

Product Data Sheet – Perforate System

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1. Product Overview

PRODUCT NAME: PERFORATE CEILING TILE WITH INTEGRATED LIGHTING

Description: Andalusia's Perforate metal platform is a parametrically-driven perforated metal ceiling tile system featuring patterns of variable holes sizes and types to create custom patterns.

- Designed for 2' x 4' T-grid systems
- Lay-in lighting pan for backlit applications
- Acrylic layer applied to Perforate panel for light diffusion
- Remote drivers for lighting pan

Applications: Ideal for adding movement, texture, and acoustic value to commercial ceilings. Office, education, healthcare, civic, hospitality, exterior and interior ceiling environments.

2. Technical Specifications

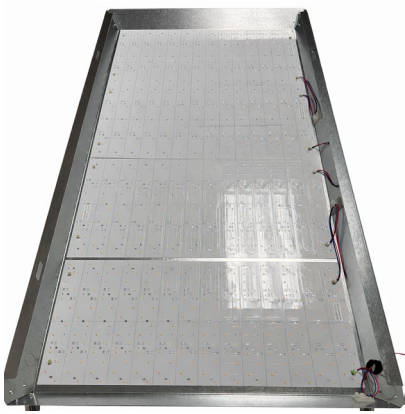
SYSTEM COMPONENTS

Component	Description	Structural Role
Perforated Face Panel	Aluminum perforated panel with acrylic diffuser. Attaches mechanically to lighting pan via torsion springs.	Non-structural element; supported via torsion springs with support straps
Lay-In Lighting Pan	Metal pan housing integrated LED sheets and serving as the lay-in component that rests on the ceiling grid.	Lay-in component supported by ceiling grid; tie-offs to grid and structure
Ceiling Grid (by others)	Standard 15/16" T-grid suspension system attached to building structure by others.	Structural support system



Parameter	Specification
Perforate Tile Size	24" x 48" nominal
Material – Face	5052 Aluminum 0.063" and 0.090"
Material – Backer	1/8" Acrylic diffuser
Grid Compatibility	Standard 15/16" T-grid ceiling systems
Fire Rating	ASTM E84 Class A (metal only)
Finish Options	Powder coated

3. Installation



Light pan that lays onto grid
(LED sheets face down)

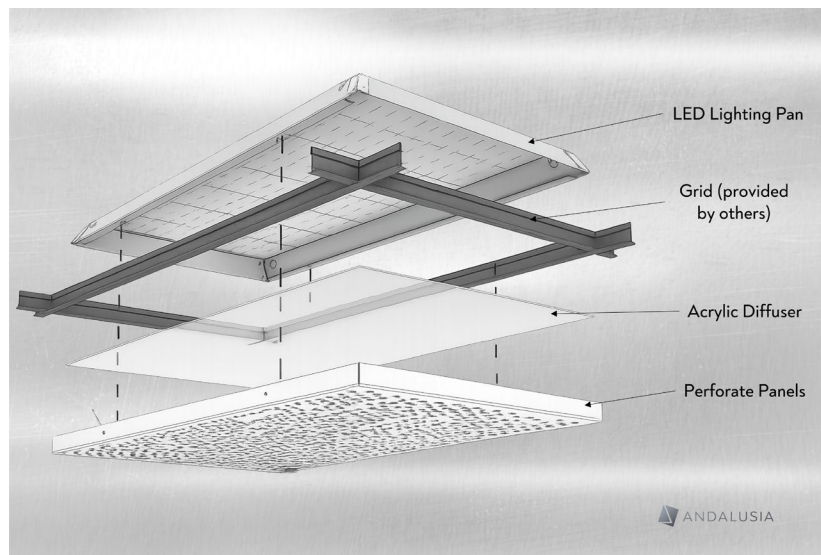


Perforate panel (underside)
with integrated acrylic layer

Mounting: Torsion spring installation into lighting pan that lays onto grid

Additional Accessories:

- Acrylic diffuser layer flush with top side of Perforate panel
- Pre-integrated LED array on light pan
- Integral safety eyelits on lighting pans
- Safety cable(s) for perforated panel



Exploded view of standard Perforate installation with integrated lighting

4. Plenum, Soffit & Uplift Retention Performance

STRUCTURAL RESPONSIBILITY

Andalusia Design provides ceiling panels, lighting pans, and panel retention hardware only. Andalusia does not provide ceiling grid, building structure, hanger wires, or attachment of ceiling grid systems to the building structure. All ceiling suspension systems and structural attachments shall be designed, furnished, and installed by others in accordance with applicable building codes.

PANEL-TO-GRID UPLIFT RETENTION

When installed into a code-compliant ceiling grid system, the Andalusia Perforate Tile System provides mechanical retention between the panel and the ceiling grid to resist uplift forces caused by air pressure, return-air plenums, and soffit conditions.

- Panel-to-grid retention force (torsion spring preload): approximately 30 lbs per 2'x4' tile
- Retention method: Torsion springs
- Applicable use: Interior plenums, return-air ceilings, covered soffits

UPLIFT HARDWARE

For soffit, plenum, or negative-pressure plenum ceiling applications:

- Four (4) torsion springs provided per 2'x4' tile
- Each lay-in lighting pan shall be provided with four (4) integral safety eyelets
- Minimum of one (1) independent safety cable per lighting pan, attached to building structure by others, to serve as secondary support in soffit, plenum, healthcare, seismic, and exterior covered ceiling applications

The panel-to-grid retention hardware is intended to provide positive panel seating, rattle resistance, and uplift assistance, but does not constitute a rated uplift-resistant ceiling assembly.

5. Available Configurations

Panel Sizes: 2'x4' standard, custom by request

Patterns: Standard patterns and custom options available

Backers: Acrylic

Custom Features: Lighting integration, branded perforation, text/logo

6. Sustainability

- Low-VOC, powder coating finish
- LEED contribution potential (MR and EQ credits)
- EPD available upon request

7. Ordering Information

Product Code Format: PERF-xxxxxx (panels); LPERF-xxxxxx (lighting pan)

Lead Time: 6–8 weeks standard (longer lead times or phased for larger projects)

Minimum Order Quantity: None

8. Product Weights (approx.)

Material + Backer	Estimated Weight per 2'x4' Tile (lbs)
Aluminum + acrylic diffuser	15 (0.063" aluminum)
	18 (0.090" aluminum)
Lighting pan	14

9. Manufacturer Information

Company: Andalusia Design

Website: www.andalusia.design

Contact: 847-815-1464

Address: 4401 Friedrich Ln, Ste 200, Austin, TX