

ARCHITECT & MEP ENGINEERING NOTICE REPORT

FRPS FIRE-RATED (FR) COMPOSITE TROFFER / LED LAY-IN PANEL FIXTURE ENCLOSURES

Project Use	Troffer / LED lay-in light panel fixtures installed in T-grid suspended ceiling systems within fire-resistance-rated floor/ceiling and roof/ceiling assemblies.
Related Product	FRPS patent pending composite fire-rated troffer / LED lay-in panel fixture enclosure.
Standard Sizes	12 x 48, 24 x 24, and 24 x 48, 12 x 48 inches; 3-1/4 inch or 5-inch heights. Custom sizes available upon request.
Related Work	Division 07 firestopping; Division 09 acoustical ceilings; Division 23 HVAC coordination where applicable; Division 26 lighting and electrical coordination.

This notice provides coordination and specification information for FRPS patent pending composite fire-, smoke-, and flame-resistant enclosures used over troffer and LED lay-in light panel fixtures in T-grid suspended ceiling systems. The purpose is to help the Architect, MEP Engineer, contractor, inspector, and AHJ maintain the required fire-resistance rating of rated horizontal assemblies where ceiling fixtures interrupt or occupy the protected membrane area.

Product Description

FRPS composite enclosures are factory-manufactured fire-rated fixture enclosures designed to install over troffer and LED lay-in panel fixtures. Enclosures ship flat and fold on site into a five-sided box using factory-installed peel-and-stick adhesive forming tabs. The enclosure installs over the fixture housing within the same T-grid opening as the light fixture.

- Extremely lightweight composite construction; a typical 2 ft x 4 ft enclosure weighs less than 2 lb.
- No drilling and no added field-applied sealants are required for standard assembly unless the listing or manufacturer instructions state otherwise.
- Non-combustible, non-corrosive, fungus-, mold-, and mildew-resistant, and antimicrobial-preventive.
- Intended for 1-hour and 2-hour fire-rated ceiling assemblies, subject to approved listing and project conditions.
- 100 percent made in the USA.

Design and Code Coordination Statement

Where a troffer or LED lay-in light panel fixture is installed in a fire-resistance-rated floor/ceiling or roof/ceiling assembly, the design team shall confirm that the installation does not reduce the assembly rating. The fixture enclosure and related construction shall be documented in the project specifications, reflected ceiling plans, rated assembly details, and submittal package as required by the AHJ.

Specifier Note: *Edit this notice and specification to match the project-specific listing, hourly rating, ceiling assembly, fixture model, AHJ requirements, and manufacturer installation instructions. This document is not a substitute for project-specific code review.*

Architectural Coordination Requirements

- Show troffer / LED lay-in panel locations on reflected ceiling plans and coordinate with fire-resistance-rated ceiling assemblies.
- Coordinate fixture layout with ceiling grid, access panels, sprinklers, speakers, sensors, diffusers, fire alarm devices, and other ceiling-mounted components.
- Identify rated ceiling assemblies and note that listed FRPS composite enclosures are required where troffer / LED lay-in panels are installed in rated horizontal assemblies.
- Confirm that enclosure height and plenum depth are compatible with ceiling construction, structure, ducts, piping, conduits, and access requirements.

- Include FRPS fire-rated enclosure details in rated ceiling assembly notes and project specifications.

MEP Engineering Coordination Requirements

- Coordinate luminaire selection, fixture dimensions, driver location, wiring, junction box access, and thermal clearance with the selected FRPS enclosure.
- Confirm that electrical routing does not bypass or compromise the fire-rated enclosure or rated ceiling assembly.
- Coordinate ceiling device layout with sprinkler spacing, smoke detection, fire alarm devices, and HVAC diffusers so required clearances and coverage are maintained.
- Reference the FRPS enclosure requirement in Division 26 lighting and electrical specifications where fixtures occur in fire-rated ceiling assemblies.
- Submit product data, fire-test compliance documentation, installation instructions, and fixture/enclosure coordination drawings before installation.

Available Enclosure Options

Fixture Application	Standard Sizes	Standard Heights
Troffer / LED lay-in panel fixture enclosures	12 x 48, 24 x 24, 24 x 48, 12 x 48	3-1/4 inch or 5 inches
Custom configurations	Available upon request	As approved by manufacturer/listing

Testing and Enhanced Performance Summary

- ASTM E119 / UL 263 fire-resistance-rated construction testing.
- ASTM E84 Class A non-combustible surface burning characteristics.
- CAN/ULC-S101 fire endurance testing, where applicable to listing documentation.
- ASTM E283 air leakage performance testing.
- ASTM G21 mold/mildew/fungal resistance and anti-microbial preventive
- ASTM C518 thermal transmission testing.
- ASTM C423 sound absorption / acoustic performance testing.
- Enhanced performance attributes include Chicago Plenum approval, California Proposition 65 compliance, odorless and chemically stable inorganic construction, and not registered as hazardous waste, subject to manufacturer documentation.

SCROLL DOWN TO VIEW CSI DIVISION 07 DOCUMENTATION

SECTION 07 84 43

FIRE-RATED COMPOSITE TROFFER / LED LAY-IN PANEL FIXTURE ENCLOSURES

Specifier Note: *This CSI section is written as Division 07 firestopping / penetration protection language with coordination to Division 26 lighting. Revise section number and title to match the project master specification.*

PART 1 - GENERAL

1.1 SUMMARY

Section Includes: Factory-manufactured composite fire-rated enclosures for troffer and LED lay-in panel fixtures installed in fire-resistance-rated floor/ceiling and roof/ceiling assemblies.

Purpose: Maintain the fire-resistance rating of rated horizontal assemblies where lay-in light fixtures are installed in suspended T-grid ceiling systems.

Applications: 1-hour and 2-hour rated ceiling assemblies where approved by the applicable listing, manufacturer instructions, project documents, and AHJ.

Coordination: Work of this Section shall be coordinated with ceiling suspension systems, lighting fixtures, electrical raceways, sprinkler systems, fire alarm devices, HVAC components, and access requirements.

1.2 RELATED REQUIREMENTS

- Section 07 84 00 - Firestopping: General firestop systems and inspection requirements.
- Section 09 51 00 - Acoustical Ceilings: T-grid suspended ceiling systems and ceiling panel coordination.
- Section 23 00 00 - Heating, Ventilating, and Air Conditioning: Coordination with diffusers, return air paths, and plenum conditions.
- Section 26 05 00 - Common Work Results for Electrical: General electrical coordination.
- Section 26 50 00 - Lighting: Troffer and LED lay-in panel fixtures.

1.3 REFERENCES

- International Building Code (IBC), Chapter 7 - Fire and Smoke Protection Features.
- ASTM E119 - Standard Test Methods for Fire Tests of Building Construction and Materials.
- UL 263 - Fire Tests of Building Construction and Materials.
- ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials.
- CAN/ULC-S101 - Standard Methods of Fire Endurance Tests of Building Construction and Materials, where applicable.
- ASTM E283 - Standard Test Method for Determining Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors, as applicable to air leakage performance documentation.
- ASTM G21 - Standard Practice for Determining Resistance of Synthetic Polymeric Materials to Fungi.
- ASTM C518 - Standard Test Method for Steady-State Thermal Transmission Properties.
- ASTM C423 - Standard Test Method for Sound Absorption and Sound Absorption Coefficients.

1.4 ADMINISTRATIVE REQUIREMENTS

Preinstallation Coordination: Conduct coordination among Architect, MEP Engineer, General Contractor, ceiling installer, electrical contractor, firestopping contractor, and AHJ where required.

Coordinate fixture/enclosure size before ordering. Confirm T-grid module, enclosure height, fixture housing depth, driver location, wiring access, ceiling plenum conflicts, and rated assembly conditions.

Do not proceed with installation in rated assemblies until product data, listing documentation, fixture coordination, and installation instructions have been reviewed.

1.5 SUBMITTALS

- Product Data: Manufacturer technical data for each FRPS composite enclosure size and height.
- Fire-Test Documentation: Documentation showing compliance with ASTM E119 / UL 263, ASTM E84 Class A, CAN/ULC-S101 where applicable, and other performance tests required by the project.

- Shop Drawings: Reflected ceiling plan coordination showing fixture locations, enclosure sizes, ceiling grid, sprinkler heads, fire alarm devices, diffusers, access panels, and electrical service access.
- Installation Instructions: Manufacturer printed installation instructions showing flat-pack forming, peel-and-stick tab assembly, placement over fixture housing, and limitations.
- Closeout Submittals: Product data, installed locations, installation photographs where required, firestop/penetration protection documentation, and AHJ inspection sign-off where required.

1.6 QUALITY ASSURANCE

Manufacturer Qualifications: Manufacturer shall provide fire-rated enclosure systems tested or evaluated for use in rated ceiling assemblies.

Installer Qualifications: Installer shall be experienced with T-grid suspended ceiling systems, recessed lay-in lighting, and rated assembly coordination.

Regulatory Requirements: Installation shall comply with applicable building code requirements for maintaining fire-resistance-rated construction.

Mockup or First Installation Review: Where requested, provide first installation for review by design team, contractor, inspector, or AHJ before proceeding with remaining work.

1.7 DELIVERY, STORAGE, AND HANDLING

- Deliver enclosures flat-packed in manufacturer packaging with product identification intact.
- Store indoors, dry, and protected from deformation, contamination, and physical damage.
- Do not install damaged, wet, deformed, or contaminated enclosures.

PART 2 - PRODUCTS

2.1 MANUFACTURER

Basis-of-Design Manufacturer: FRPS - Fire Rated Product Specialties Corp / Fire Rated Penetration Systems.

Website: www.frpsonline.com. **Technical support:** john@frpsonline.com; 612-294-1450.

Substitutions: Substitutions are not permitted unless the proposed system is tested and documented for the same rated ceiling assembly, fixture type, enclosure size, hourly rating, and installation configuration. Submit complete documentation before use.

2.2 FIRE-RATED COMPOSITE TROFFER / LED LAY-IN PANEL ENCLOSURES

- Patent pending composite fire-, smoke-, and flame-resistant enclosure for troffer / LED lay-in light panel fixtures.
- Factory-manufactured flat-pack enclosure that folds on site into a five-sided box.
- Factory-installed peel-and-stick adhesive forming tabs for quick and secure assembly.
- Designed to install over the troffer or LED lay-in panel fixture housing within the same T-grid opening as the light fixture.
- Non-combustible, non-corrosive, inorganic composite construction.
- Fungus-, mold-, and mildew-resistant and antimicrobial-preventive.
- Extremely lightweight construction; typical 24 x 48 inch enclosure weighs less than 2 lb.
- No field drilling or added sealants required for standard assembly unless required by the listing, AHJ, or manufacturer instructions.

2.3 STANDARD PRODUCT OPTIONS

Product Type	Width x Length	Height	Notes
Troffer / LED lay-in panel enclosure	12 x 48 in.	3-1/4 in. or 5 in.	For rated T-grid ceiling applications.
Troffer / LED lay-in panel enclosure	24 x 24 in.	3-1/4 in. or 5 in.	Coordinate with fixture depth and plenum conditions.
Troffer / LED lay-in panel enclosure	24 x 48 in.	3-1/4 in. or 5 in.	Typical 2 x 4 enclosure weighs less than 2 lb.

Custom enclosure	As required	As approved	Available upon request, subject to manufacturer and listing limitations.
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2.4 PERFORMANCE REQUIREMENTS

Fire-Resistance: Provide enclosure system documented for use in fire-resistance-rated ceiling assemblies and tested to ASTM E119 / UL 263, as applicable to project requirements.

Surface Burning: ASTM E84 Class A rated.

Canadian Fire Endurance: CAN/ULC-S101 where applicable to project listing documentation.

Air Leakage: ASTM E283 tested where required for project application or energy-code coordination.

Fungal Resistance: ASTM G21 tested.

Thermal Transmission: ASTM C518 tested.

Acoustic Performance: ASTM C423 tested.

Enhanced Attributes: Chicago Plenum approved, California Proposition 65 compliant, odorless, chemically stable, inorganic, and not registered as hazardous waste where supported by manufacturer documentation.

2.5 UNACCEPTABLE PRODUCTS AND METHODS

- Unlisted field-fabricated boxes or covers used as a substitute for tested FRPS composite enclosures.
- Use of insulation, gypsum scraps, mineral wool, sealant, or ad hoc patching as the sole means of maintaining the rated assembly at lay-in light panel locations.
- Field modification of the enclosure that is not permitted by manufacturer instructions or listing documentation.
- Installation of troffer / LED lay-in panels in rated ceiling assemblies without documented rated enclosure protection where required by the project and AHJ.

PART 3 - EXECUTION

3.1 EXAMINATION

Verify fire-resistance rating, ceiling assembly, T-grid layout, fixture model, enclosure size, enclosure height, wiring access, and plenum clearance before installation.

Verify that ceiling suspension system and fixture support are complete and coordinated with the enclosure installation.

Do not begin work where conditions prevent installation in accordance with manufacturer instructions, approved listing, and project documents.

3.2 INSTALLATION

Install FRPS composite enclosure strictly in accordance with manufacturer printed instructions and applicable listing documentation.

Remove enclosure from flat packaging and fold into a rigid five-sided box using factory-installed peel-and-stick adhesive forming tabs.

Place enclosure over the troffer / LED lay-in panel fixture housing within the same T-grid opening as the light fixture.

Maintain required clearance around drivers, wiring, junction boxes, emergency lighting components, and other heat-generating components.

Do not drill, cut, notch, penetrate, fasten through, or otherwise modify the enclosure unless expressly permitted by manufacturer instructions and approved listing.

Coordinate electrical wiring, fixture access, ceiling panel placement, and fire-rated assembly continuity so the completed work remains within the listing limitations.

3.3 FIELD QUALITY CONTROL

Inspect each enclosure installation before ceiling closure or acceptance where access will be limited.

Confirm enclosure is fully formed, seated over the fixture housing, undamaged, and coordinated with T-grid and fixture installation.

AHJ or third-party inspector may require verification that installation matches manufacturer instructions and tested assembly documentation.

Remove and replace damaged, deformed, modified, or nonconforming enclosures.

3.4 CLEANING AND PROTECTION

Remove debris and packaging from ceiling cavity.

Protect installed enclosures from trade damage, displacement, moisture, and contamination until final acceptance.

Replace enclosures that are damaged before project closeout.

3.5 CLOSEOUT DOCUMENTATION

- Manufacturer product data and installation instructions.
- Fire-test and enhanced performance documentation submitted for the project.
- Installed location schedule or marked reflected ceiling plan showing protected fixture locations.
- Photographic documentation where required by the project firestop quality control program or AHJ.
- Inspection sign-off where required by AHJ.

END OF SECTION 07 84 43

APPENDIX A - DIVISION 26 LIGHTING COORDINATION LANGUAGE

Specifier Note: Insert the following language into Section 26 50 00 - Lighting or related electrical sections to coordinate fixture selection and installation with Division 07 fire-rated enclosure requirements.

A.1 GENERAL

Troffer and LED lay-in panel light fixtures installed in fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall be coordinated with Division 07 fire-rated enclosure requirements. Where required to maintain the hourly rating, provide FRPS composite fire-rated enclosures sized for the selected fixture and rated assembly.

A.2 SUBMITTALS

- Fixture product data showing dimensions, driver location, wiring access, thermal requirements, and installation clearances.
- FRPS enclosure product data and installation instructions.
- Coordination drawing showing fixture, enclosure, T-grid, sprinkler, detector, diffuser, and access locations.
- Fire-rated assembly documentation and AHJ-required listing information.

A.3 EXECUTION

Install lighting fixtures in rated ceiling assemblies only with approved FRPS fire-rated enclosure protection where required by the project documents and AHJ.

Do not route wiring, supports, or accessories in a manner that compromises the FRPS enclosure or rated assembly.

Maintain fixture service access and manufacturer-required clearances.

Remove and replace installations that lack required fire-rated enclosure protection or that modify the enclosure outside manufacturer limitations.

APPENDIX B - SHORT-FORM DRAWING / SPECIFICATION NOTE

Troffer and LED lay-in panel light fixtures installed in fire-resistance-rated floor/ceiling or roof/ceiling assemblies shall be protected with FRPS patent pending composite fire-rated enclosures tested to ASTM E119 / UL 263 and ASTM E84 Class A, with additional performance documentation as required. Enclosures shall be sized for the selected fixture, installed over the fixture housing within the T-grid opening, and installed in accordance with manufacturer instructions and approved listing documentation. Field-fabricated covers, unlisted box assemblies, and ad hoc patching methods are not permitted.

APPENDIX C - ARCHITECT / MEP FIELD NOTICE CHECKLIST

Coordination Item	Status	Required Action
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Troffer / LED lay-in panel located in fire-rated ceiling assembly.	☐ Review	Confirm FRPS enclosure requirement and approved listing.
Fixture size, driver location, and enclosure height coordinated.	☐ Review	Verify 12 x 48, 24 x 24, 24 x 48, or approved custom size.
RCP coordinated with sprinklers, detectors, diffusers, access panels, and ceiling grid.	☐ Review	Revise RCP and coordination drawings before installation.
Fixture installed without listed fire-rated enclosure where required.	☐ Observed	Stop work; install approved FRPS enclosure or submit corrective detail.
Enclosure damaged, cut, drilled, or modified.	☐ Observed	Remove and replace unless written approval is provided by manufacturer and AHJ.
Closeout documentation incomplete.	☐ Open	Provide product data, installation instructions, location schedule, photos, and inspection sign-off if required.

APPENDIX D - PARTIAL LIST OF APPROVED LUMINAIRE DESIGN ASSEMBLIES

The source notice identifies the following as a partial list of approved luminaire designs or related assembly design references. Confirm the current applicable listing and project-specific assembly before use:

UL L529, L201, R211, R212, R214, R217, R220, R222, R223, R224; D21, D219; G205, G208, G252, G255, G256, G262, G264; J201, J202; L006, L201, L202, L206, L210; P202, P204, P206, P207, P210, P211, P213, P214, P216, P225, P227, P228, P229, P230, P231, P235, P238, P242, P246, P250, P251, P254, P255, P259, P260, P261, P264, P265, P267, P268, P269, and additional assemblies as documented by FRPS.

APPENDIX E - DISTRIBUTION

- ☐ Architect of Record
- ☐ MEP Engineer of Record
- ☐ Electrical Engineer
- ☐ Lighting Designer
- ☐ General Contractor
- ☐ Electrical Contractor
- ☐ Ceiling Contractor
- ☐ Firestopping Contractor
- ☐ AHJ / Firestop Inspector
- ☐ Owner / Facilities Team