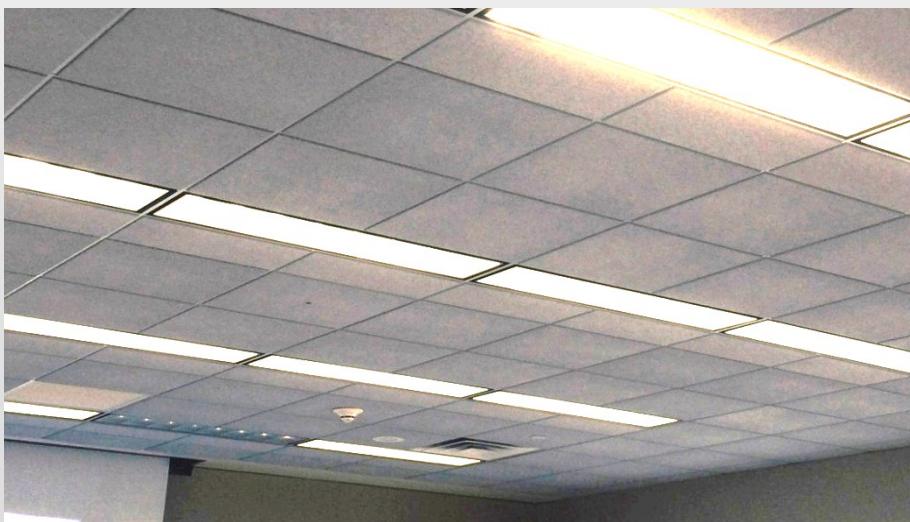




SafeLite® Ceiling Fixture Covers Fire and Sound Blocking and Thermal Energy Savings



Light Fixtures Come In Varied Shapes and Sizes (also Speakers)



Protection for Can lights, 2' x 2', 2' x 4' 1' x 4', end to end, etc. up to 14" high



Applications For Suspended & Drywall Ceilings

(Typically, penetrations make up 10 - 20% of the ceiling area)



Deep egg crate
style fixture

Recessed can lights, fluorescents, speakers, etc. impact ceiling assembly fire rating, sound transmission and energy losses.

Note: HVAC diffusers are supplied fire rated as needed

UL / ULC Listings Require Fixture Protection



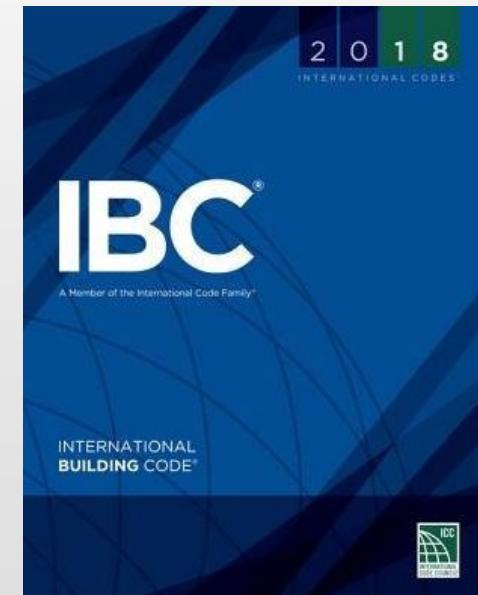
**Underwriters
Laboratories**

- All UL fire rated suspended and drywall ceiling listings require recessed fixture protection.
- Items such as recessed light fixtures & speaker high hats must be protected with specified materials.

International Building Code (IBC)

713.4.1.2 Membrane penetrations. Penetrations of membranes that are part of a *horizontal assembly* shall comply with Section 713.4.1.1 or 713.4.1.2. Where floor/ceiling assemblies are required to have a *fire-resistance rating*, recessed fixtures shall be installed such that the required fire resistance will not be reduced.⁴

*Ignorance to CODE
does not excuse liability*



Patented SafeLite®

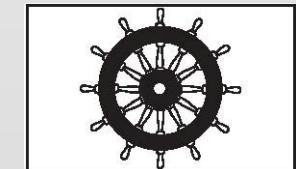
The only UL Listed fixture enclosure fire tested for up to 3 hours with

Listings for: Can lights, 2' x 2', 2' x 4', 20" x 60" Fixtures (inc. vented) and Speakers

Patent / U.S. Patent Registration No. 7,627,999 B2



8.17

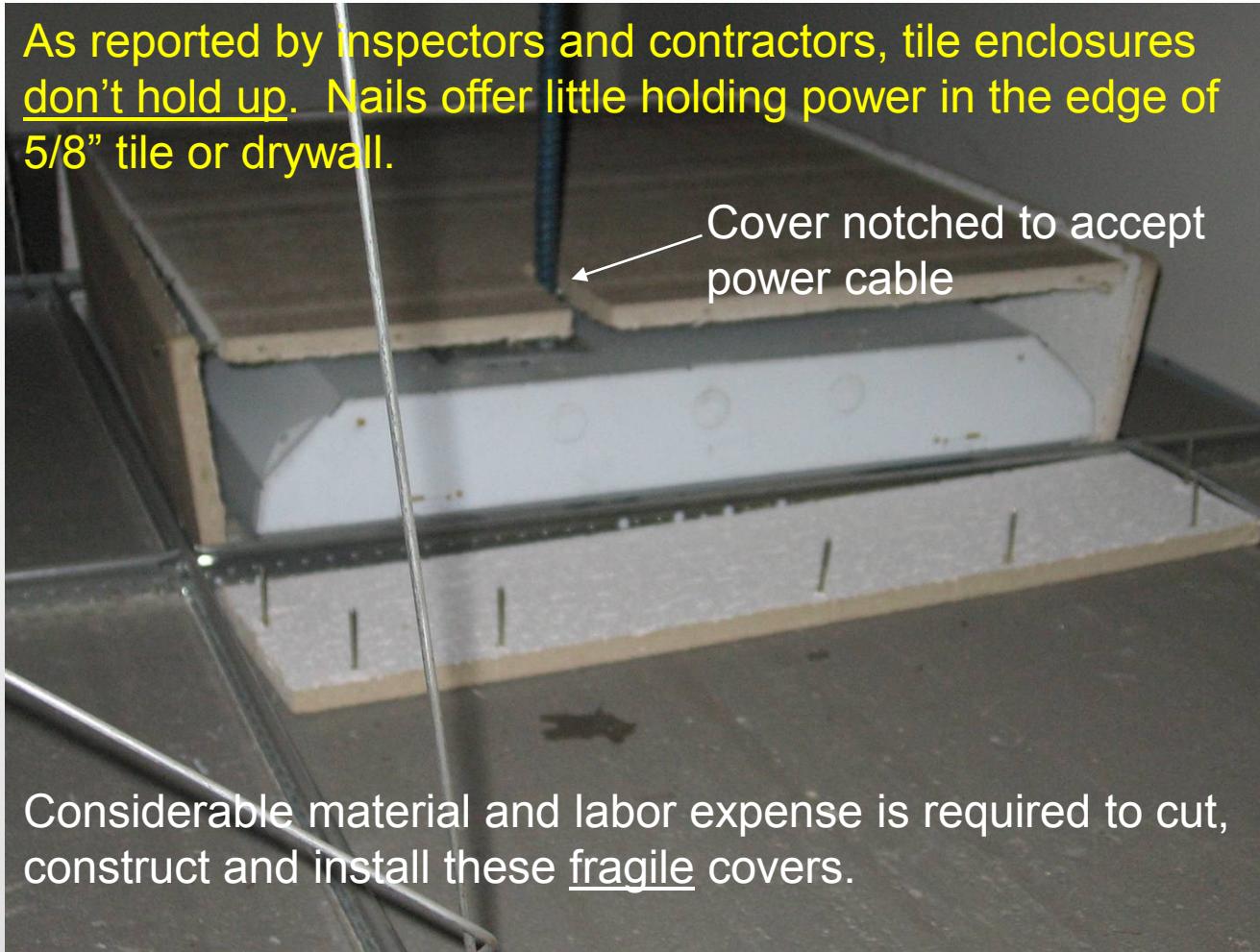


1408/12



Historical Approaches – Field Constructed Tile Enclosures

As reported by inspectors and contractors, tile enclosures don't hold up. Nails offer little holding power in the edge of 5/8" tile or drywall.



Considerable material and labor expense is required to cut, construct and install these fragile covers.

IMPORTANT: Installers, Architects and Owners can face liability exposure for assembly failures.

Drywall Fixture Enclosures

Typ. Industry practice: 2 layers 5/8" rated gyp. attached to steel frame with joints taped etc. and penetrations fire caulked

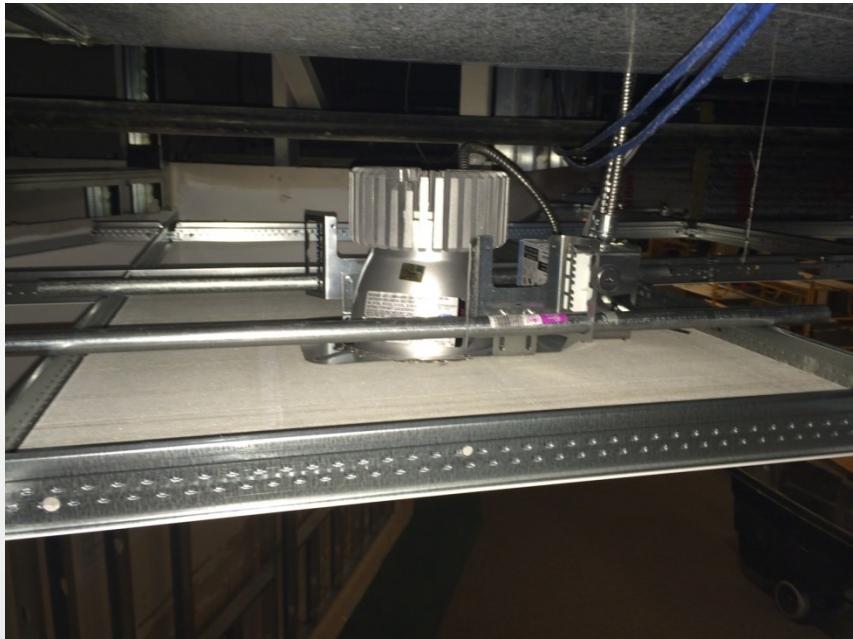
No UL Listing



* **CAUTION:** Drywall product limitations state “**avoid exposure to sustained temperatures of 125°F** Not a good choice for heat producing applications.

- Heat dries out chemically bound water needed for the fire resistance.
- Typical fluorescent light fixture ballasts operate at 68-70°C (**155-160°F**) with a typ. maximum of 135°C (**275°F**).
 - Can lights can also generate considerable heat especially in unconditioned ceiling cavity space.
 - As shown, field constructed drywall enclosures are subject to variations in construction quality and therefore performance.
 - Power cable and suspension wire notches present clear paths for fire if not properly fire caulked.
 - Covers are heavy and labor intensive to construct and install.

Typical SafeLite Can Light Application

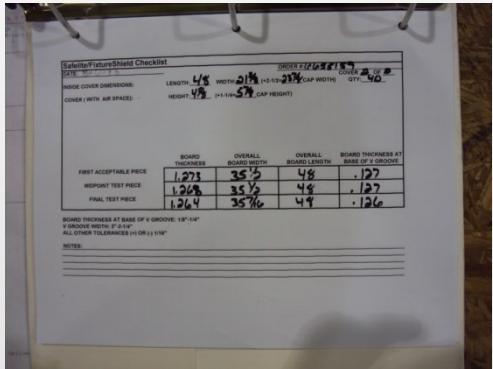
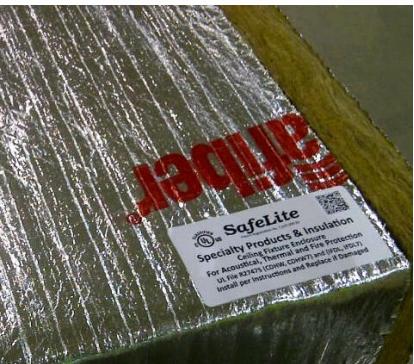


This fixture required Minimum 3" clearance on all sides. SafeLite was fabricated to comply.

SafeLite installed in a suspended ceiling system for Fire Protection and Acoustics



SafeLite Quality Control / UL Follow-up Service



12A. Fixture Protection - Luminaires, Luminaire Assemblies and Luminaire Enclosures Classified for Fire Resistance* — (Not Shown) — (Not Shown) - As an alternate to Item 12, luminaire enclosure kits consisting of pre-cut pieces of faced batts and assembly hardware may be used to form a five-sided rectangular enclosure over NEMA G recessed light fixtures. Luminaire enclosure kit to be installed in accordance with the accompanying installation instructions. When air supply light fixtures with air boots are used, fixtures and air boots shall be fully enclosed except for the opening needed to accommodate connection to air supply duct.

SPI LLC, dba SPI – Specialty Products & Insulation - SafeLite®



UL Online Directory, SafeLite Certification Summary

Luminaires, Luminaire Assemblies and Luminaire Enclosures Certified for Fire Resistance

[See General Information for Luminaires, Luminaire Assemblies and Luminaire Enclosures Certified for Fire Resistance](#)

SPI LLC

SPI-SPECIALTY PRODUCTS & INSULATION

C/O DUNES POINT CAPITAL

411 THEODORE FREND AVE, SUITE 125

RYE, NY 10580 USA

R27475

SafeLite® Enclosure Kits for use with recessed luminaires in Design Nos. [D010](#), [D216](#), [D219](#), [G230](#), [G234](#), [G258](#), [G523](#), [G526](#), [J202](#), [L006](#), [P207](#), [P228](#), [P230](#), [P237](#) and [P267](#).

Last Updated on 2019-02-21

The appearance of a company's name or product in this database does not in itself assure that products so identified have been manufactured under UL's Follow-Up Service. Only those products bearing the UL Mark should be considered to be Certified and covered under UL's Follow-Up Service. Always look for the Mark on the product.

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SafeLite Listings include:
Armstrong / USG / Saint-Gobain / Rockfon and Gypsum Assemblies
Note: Additional Listings Available for Reference

ULC Online Directory, SafeLite Certifications

Luminaires, Luminaire Assemblies and Luminaire Enclosures Certified for Fire Resistance Certified for Canada

[See General Information for Luminaires, Luminaire Assemblies and Luminaire Enclosures Certified for Fire Resistance Certified for Canada](#)

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R27475

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SafeLite ULC (Canada) Listings Note: Additional Listings Available for Reference



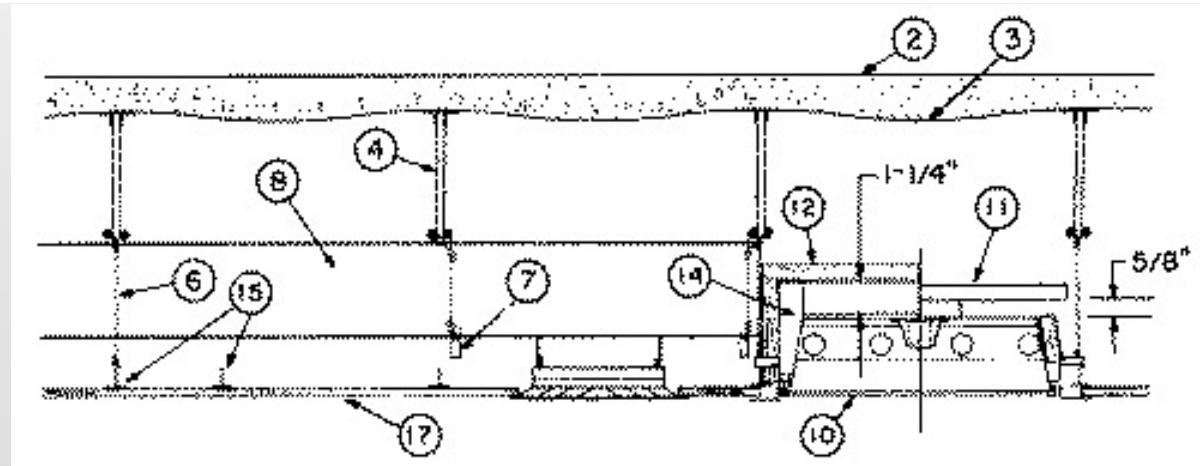
Drywall Ceiling Applications

- 1, 2 & 3 hour fire rated drywall (Type X) systems include: Floor/Ceiling or Roof/Ceiling assembly materials.
 - Higher percent of fire rated drywall ceilings Vs rated tile systems
- Non fire rated drywall mounted to steel or wood framing (***sound blocking and energy savings can be primary concerns***)
- Recessed fixtures have a significant impact to Gyp. ceiling sound blocking

Design No. G523

July 28, 2017

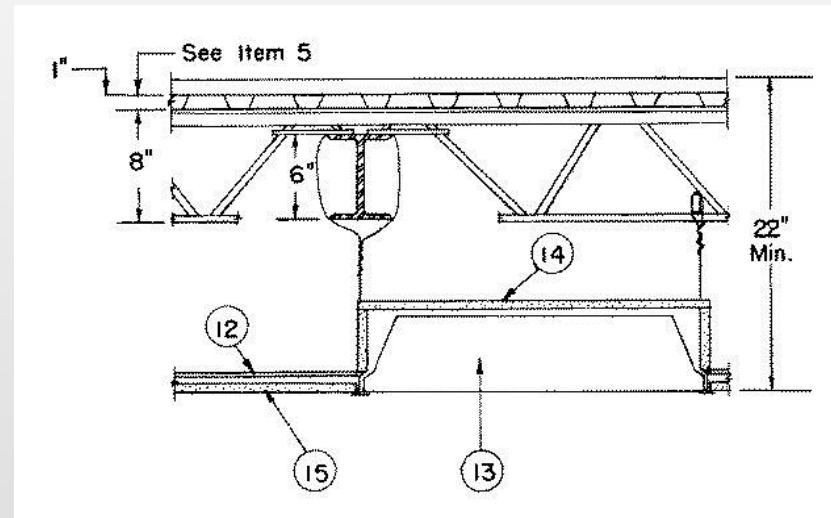
Restrained Assembly Rating — 2 and 3 Hr.



Item 12: SafeLite or FixtureShield

Grid & Tile Ceiling Systems (Armstrong, USG, Saint-Gobain, Rockfon)

- 1, 2 & 3 hour fire rated tile and grid systems include: Floor/Ceiling or Roof/Ceiling assembly materials
- Non fire rated tile and grid (selected on esthetics, NRC / CAC performance).
- CAC (ceiling attenuation class) ceiling sound blocking performance
- Recessed ceiling fixtures (lights, speakers, HVAC diffusers, sprinkler heads impact ceiling CAC performance



Item 14. Fixture Protection – UL P267

Luminaires, Luminaire Assemblies and Luminaire Enclosures Classified for Fire Resistance*

SPI LLC - **SafeLite®**

dba SPI - Specialty Products & Insulation



Fixture Lamp Types

- Fixture lamps or bulb types are typically not reported in Certified UL assembly details.
- UL designs report recessed fixture: type (light or speaker) and fixture size(s).
- Based on the above, fixture lamp type doesn't impact as tested fire performance.
- Therefore SafeLite fixture covers can be installed on: Incandescent, Fluorescent, Halogen and LED lamed fixtures.
- The fixture manufacturer identifies if a specific fixture is IC or Non-IC rated. This application classification typically lists acceptable fixture lamps.

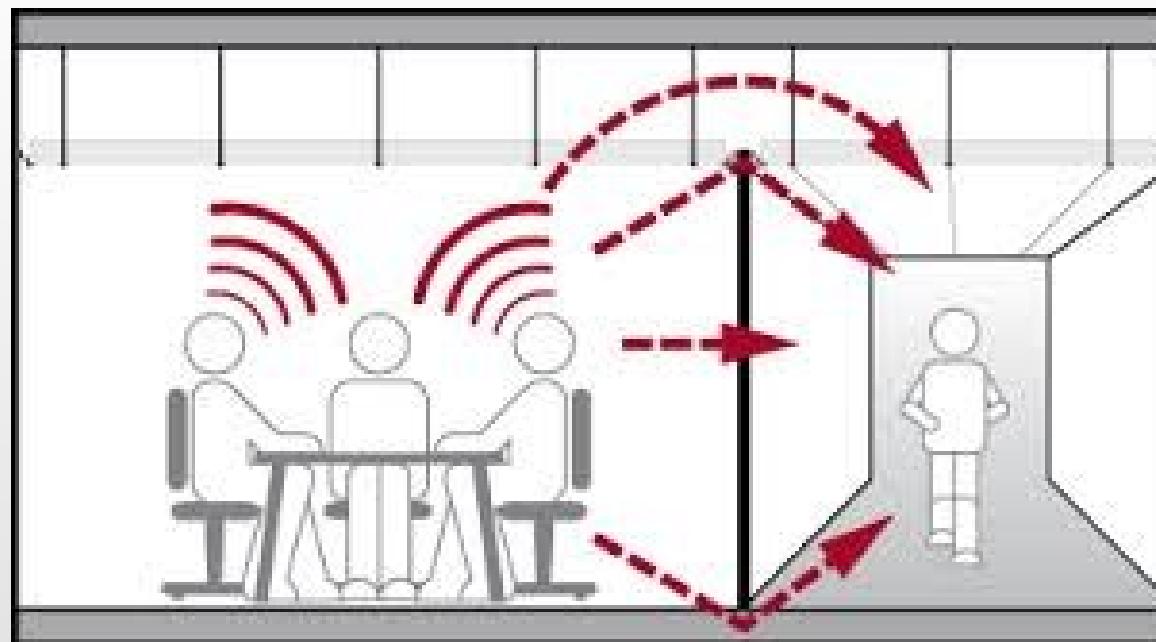


SafeLite Physical Properties

- Maximum service temperature: 1200F
- Melt Point: > 2000F
- Fire Performance:
 - Non-combustible per ASTM E-136
 - Flame Spread 25, Smoke 0 per ASTM E-84
 - Meets IBC Code requirements for Plenum Applications
- R Value 4.2 per inch per ASTM C-518
 - Effective **R value 5.25 at 1 ¼" thick** (*VS bare steel fixtures that readily transfer heating or cooling energy*)
- Reduces heating/cooling energy costs
- Acoustical Performance per ASTM C-423
 - NRC 1.00 at 2" thick
 - Sound blocking "CAC" information follows

Ceiling Attenuation Class (CAC)

- CAC is important and controls sound transmission and speech privacy between closed adjacent spaces.



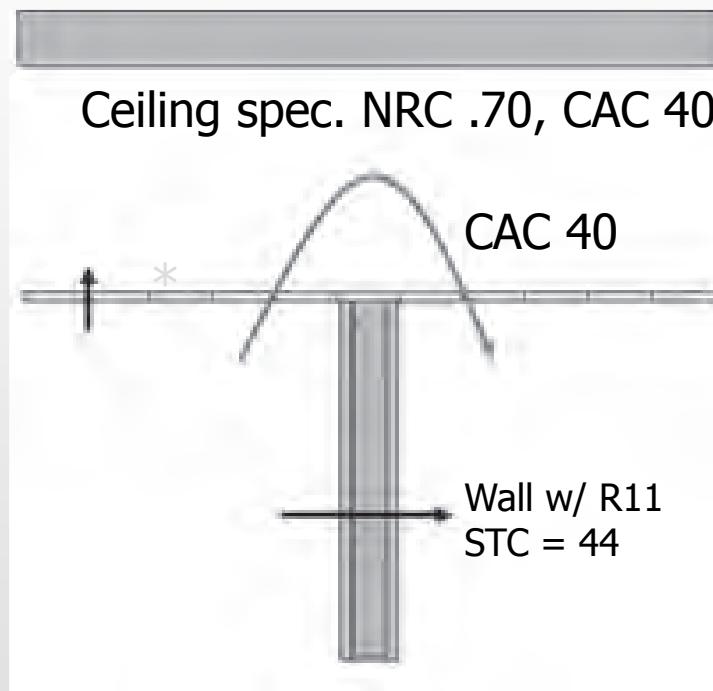
UL listed SafeLite provide documented sound blocking performance.

Ceiling CAC Performance

A measure for rating the performance of a ceiling system as a **barrier to airborne sound transmission** through a common plenum between adjacent closed spaces such as offices or classrooms.

**A CAC less than 25
is considered low
performance**

Drywall or
Suspended Ceiling



*Penetrations through
the ceiling membrane
increase noise transmission
to adjacent space and floors
above.*

SafeLite has documented sound blocking performance
Especially important in health care and education environments
for speech privacy, speech intelligibility and concentration.

CAC – Two Room Transmission Loss – AL20 (TM418) ASTM E 1414

- Armstrong high CAC #1811 Fine Fiss. tile **without light fixtures,** CAC 44
- Armstrong #1811 tile ceiling w/ 2 – 2' x 4' fixtures & SafeLite covers **CAC 45**
- Above Armstrong #1811 ceiling system w/ 2 – 2' x 4' light fixtures, **CAC 41**

Summary: **Just 2 unprotected light fixtures significantly impact a ceiling membrane's sound blocking performance.** More fixtures = greater impact. The 4 db CAC improvement shown with SafeLite is significant. SafeLite restored ceiling sound blocking performance to as if no recessed fixtures were included.

This documented application performance is critical to noise control and sound proofing efforts.





HIPAA
Compliance

- Under Section 164.502 of the Federal Register's Department of Health and Human Services final ruling on Standards for Privacy of Individually Identifiable Health Information it states that:
- "Protected Health Information includes individually identifiable information in any form, **including information that is transmitted ORALLY**, or in written or electronic form.
- This Privacy Ruling requires that covered health care entities make reasonable efforts to limit the use or disclosure of protected health information to the minimum necessary."

HIPAA Regulations Impact

- Hospitals
- Physician Offices
- Medical Clinics
- Pharmacies
- Public Health Authorities
- Military Medical Bases
- Life Insurers
- Billing Agencies
- Information System Vendors
- Service Organizations
- Schools
- Employers

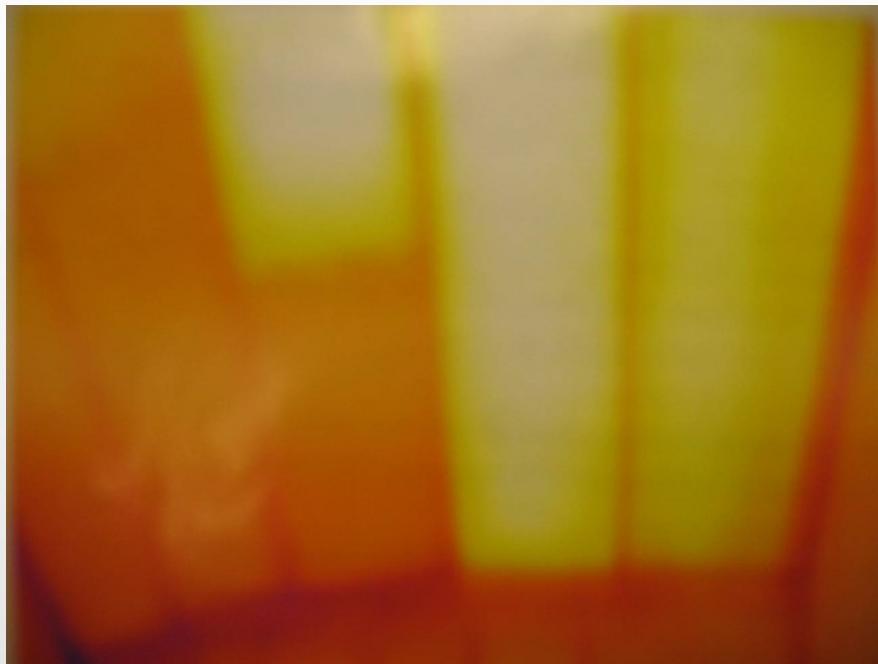


Patient Confidentiality

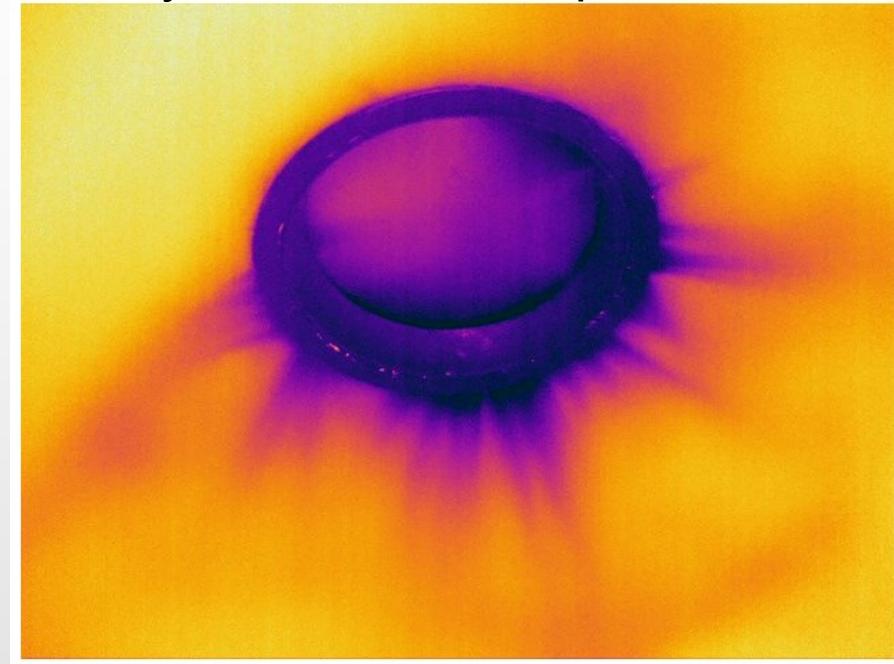
Thermal Images

Uninsulated recessed fixtures represent significant energy loss areas

Missing Ceiling Insulation



Can light air leaks from ceiling cavity to conditioned space



Penn State Engineering Study – 1 can light
\$5-30 energy loss/yr. w/ 2-10 CFM leakage

SafeLite light covers provide an R Value of 5.25 reducing fixture energy losses during heating and cooling seasons

Sheetmetal fixture housings offers no insulation value

2009 IECC Mandatory Requirements – Recessed Lighting

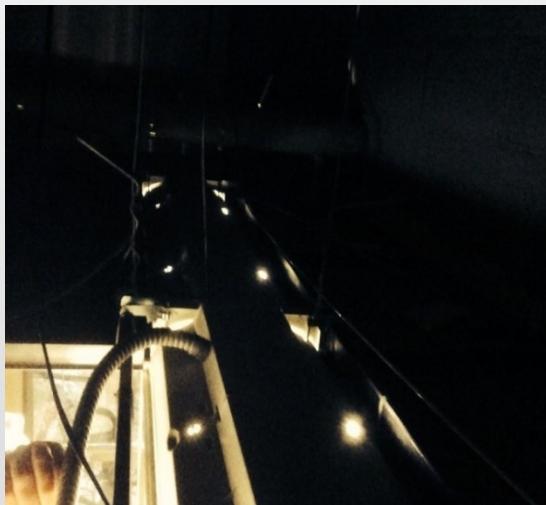
(502.4.8) International Energy Conservation Code

All recessed luminaries installed in the building envelope

- Type IC rated and sealed with gasket or caulk between housing and interior wall or ceiling covering
- Type IC rated and labeled in accordance with ASTM E 283 to allow ≤ 2.0 cfm of air movement from conditioned space to ceiling cavity
- **CODE = Minimum Requirement**
- SafeLite provides enhanced energy savings / reduced green house gas emissions and may qualify for LEED Credits

Note: State Code / Project Spec may allow Non-IC fixtures

Alternate Ref. ASHRAE 90.1



Hot and cold air readily passes through the steel housing and fixture holes



Per CODE, "Air-Tite" but NO Insulation Value



SafeLite Enhanced Fixture Insulation

Renovation and new projects can include Non IC fixtures



Typical SafeLite Users

- Acoustical ceiling and drywall contractors
- General contractors
- Institutional Facility Maintenance Depts. especially Hospital, Retirement Homes, Universities and Schools
- Electrical / lighting contractors
- A/V specialty contractors
- Firestop contractors
- Modular construction factories



Common SafeLite Applications

(For Fire/Sound Blocking and Energy Savings)

- Hospitals, Medical Facilities, Retirement Homes
- Classrooms, Music rooms
- Office, Restaurants, Mixed Function Space
- Performance Space, Religious Facilities



SafeLite = Labor Savings for Installers



- Installers report 1 or 2 heavy and awkward drywall or fragile ceiling tile enclosures field cut, fabricated and installed per man hour.
- SafeLite enclosures can be installed at 10-12 per man hour.
- One contractor documented \$10,000 savings on his first job using SafeLite versus “field fabricated” drywall covers, which provide undocumented fire protection.
- **Labor cost** - Example using \$50/hr (loaded rate) for a project with 250 light covers.
At 1 drywall cover/hr = \$12,500 labor cost (**\$50/cover**)
At 10 SafeLite covers/hr = \$1,250 labor cost (**\$5/cover**)

A compelling reason to use SafeLite!



Key SafeLite Benefits



- Maintains assembly fire ratings for life safety and liability protection.
- Documented sound blocking improves room to room confidentiality and provides a better learning environment.
- An effective R value of 5.25 reduces energy losses, saving energy and reducing greenhouse gas emissions.
- Lightweight covers install in about 5 minutes, reducing labor costs.
- **Sustainable, made from natural materials with up to 90% recycled content, can contribute to LEED credit.**





SPECIALTY PRODUCTS
& INSULATION

SafeLite®

Patent / U.S. Patent Registration No. 7,627,999 B2

(Fire, sound blocking and energy savings performance)



Fire - Maintains fire rated ceiling assembly integrity, as shown in UL suspended and drywall ceilings listings. Penetrations such as recessed light fixtures and speakers must be protected. As shown in UL Listings, SafeLite offers proven fire protection with up to 3 hour fire ratings for a variety of construction assemblies.

Sound Blocking - UL Listed SafeLite enclosures offer documented acoustical performance greatly improving speech privacy and reducing unwanted sound transmission. This performance is critical for sound proofing efforts. Applications include: education, apartments, condominiums, retail etc.

Energy Savings - SafeLite has an effective R value of 5.25 at 75° F that conserves energy during heating and cooling seasons thereby reducing green house gas and carbon emissions.

Marine - SafeLite has US Coast Guard approval for thermal and acoustical application under certifications 164.109/11, 164.112/144 and 145.

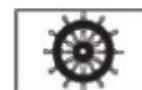
SafeLite is available to accommodate a variety of fluorescent light fixture sizes: 24" x 24", 12" x 48", 24" x 48", 20" x 60" as well as recessed can or high hat style fixtures to satisfy ceiling assembly designs specified in UL listings and required by Building Code.

SafeLite is fabricated from high temperature, noncombustible, rigid mineral fiber board (Covers are supplied at 1-1/4" thick foil faced on one side for enhanced durability). Panels are custom cut and grooved to effortlessly fold into a standard box enclosure to accommodate specific light fixture dimensions and maintain a fixture air space (custom cut enclosures are also available). Fluorescent light covers are supplied with insulation pins and locking washer to maintain clearance and secure the cover to the fixture. Pre cut end caps are provided with new improved securing pins.



Additional *SafeLite* Benefits Include:

- The lightweight (-7 pounds for a 2' x 2' light fixture) construction is a quick and easy to install saving considerable labor time and expense.
- The use of fixture securing and enclosure fasteners provides a durable system that stays in place.
- The rigid board enclosure and new fasteners offer improved durability compared to traditional field constructed enclosures.
- Covers slit easily to accommodate light fixture power cable and fixture or ceiling suspension wires, reducing labor costs for installation.
- Standoff insulation pins maintain air space requirements.
- *SafeLite* insulation board is made from natural materials having a recycled content of up to 90% and contributes to LEED credits.



1408/12



Quote/Order Form

SafeLite® ORDER FORM

COMPANY	CONTACT	DATE
PROJECT NAME & LOCATION		PHONE
SHIP TO LOCATION		DATE REQUIRED
		P.O. NUMBER

Standard Fixture Profile Dimensions



STANDARD FLUORESCENT LIGHT FIXTURE QUANTITY		CANS AND NON STANDARD FLUORESCENT FIXTURE		
2'x4'	2'x2'	L"	W"	H"
				Required Inside Cover Dimensions
				N.A.

Notes

- When ordering can light or non standard fluorescent covers provide accurate fixture dimensions. Include specific manufacturer required air space clearance for non IC rated lights to ensure correct *SafeLite* sizing.
- All covers are produced as 5 sided unless specified otherwise.
- Typical lead time 7-10 days A.R.O.
- It is the installer's responsibility to review specific U.L. ceiling design and prepare any vent opening.

SafeLite (mineral wool board, faced) Physical Properties:

Maximum service temperature	1200°F
Melt point	> 2000°F

Thermal Resistance:

ASTM C 518 (C177) R value/inch @ 75°F 4.2 (R value 5.25 @ 1-1/4" thick)

Fire Performance:

ASTM E 136 Behavior of Materials at 750°C (1382°F)	Non-Combustible
ASTM E 84 Surface Burning Characteristics	Flame Spread 25
	Smoke Developed 0

SafeLite covers are fabricated from material which is approved for use by the New York City Dept. of Building, Report of Materials and Equipment Acceptance Division under MEA 210-82-M Vol. 2.

Acoustical Performance:

ASTM C 423 NRC = 1.00 at 2" thick

ASTM E 1414 CAC-Two Room Transmission Loss, AL 20 (TM 418)

- 1.) A high performance ceiling no light fixtures, CAC 44.
- 2.) The same ceiling with 2x4 light fixtures, CAC 41.
- 3.) The same ceiling with *SafeLite* on the 2x4 light fixtures, CAC 45 (A 4db improvement over unprotected lights).

Note: A 3db (decibel) change sounds half as loud as the original noise.

SafeLite is classified by Underwriters Laboratories, Inc. for use in the fire rated floor and roof-ceiling designs listed below-

Floor-Ceiling Designs: Design Nos. D010, D216, D219, G230, G234, G258, G523, G526, J202 and L006

Roof-Ceiling Designs: Design Nos. P207, P228, P230, P237 and P267

Disclaimer and Limitation of Warranty: The purchaser/user is advised to consult with the appropriate professionals and to read the manufacturer's product information to determine the adequacy or appropriateness of the product for the use intended. SPI makes no claim or representation regarding the use or applicability of the products. Further, SPI makes no warranty, expressed or implied, and disclaims all warranties including warranties of merchantability and fitness for a particular purpose.



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Web: www.spi-co.com
Email: fabteam@spi-co.com
Nov 2018 - SafeLite

For additional information please visit:
<http://www.spi-co.com>

Please ask your Sales Representative about
our other fabrication products and services.

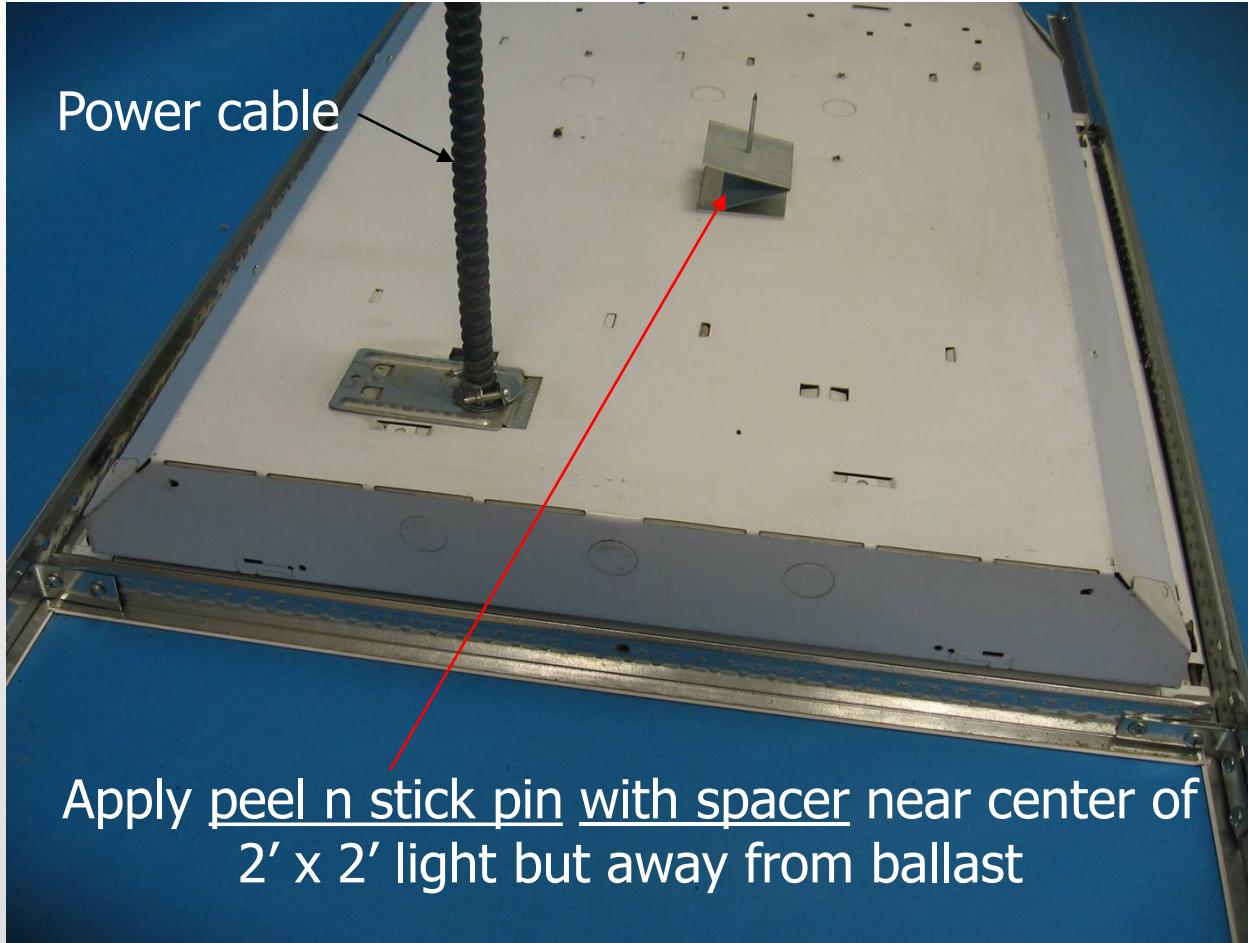


Installing SafeLite is Quick n Easy (typically 5-6 mins.)

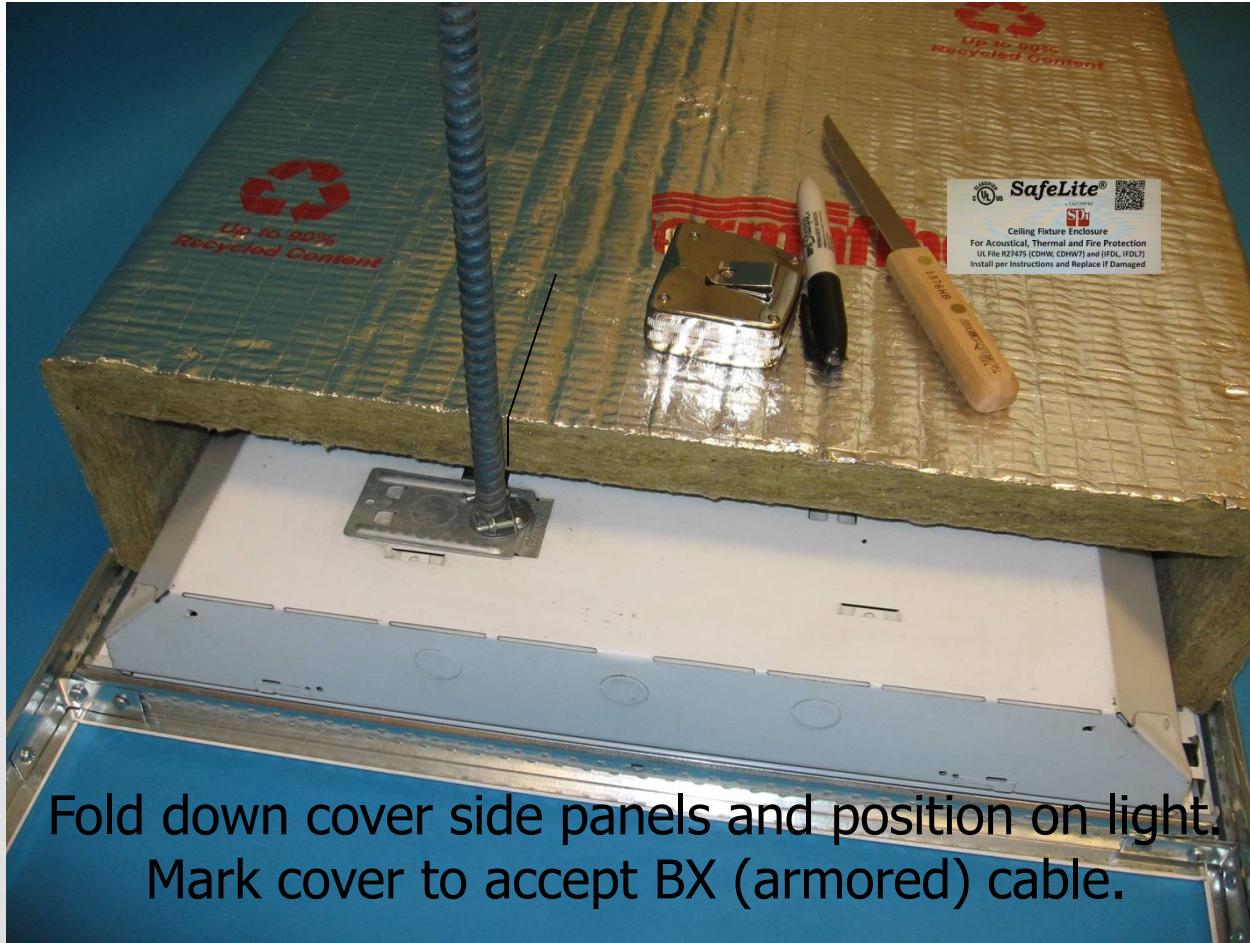
Tools Needed



Installation On A Standard 2' x 2' Light Fixture, Step 1



Main Panel Installation, Step 2



Fold down cover side panels and position on light.
Mark cover to accept BX (armored) cable.

Slit & Pull Cable into SafeLite, Align cover with Fixture, Step 3



Other molded troffer covers with limited fire ratings, require disconnecting the power cable to pass it through a precut opening in the fixture cover, a more costly installation.



Install End Caps - Step 4



SafeLite Packaging Label



SafeLite®

Patent / U.S. Patent Registration No. 7,627,999 B2

Quantity

<input type="text"/>
<input type="text"/>

Description

2 x 4 Standard fluorescent cover

2 x 2 Standard fluorescent cover



Custom Covers:

Fluorescent, Can Lights, Speakers, etc. (inside cover dimensions)

Length

Width

Height



Fixture Enclosures for Ceiling Assembly Fire, Acoustic and Thermal Performance
Phone: (717) 581-0650 • Fax: (717) 581-0655 • www.spi-co.com



LUMINARE MARINERI CLASSIFIED
FOR FIRE RESISTANCE/FIRE-RESISTANT
CLASSIFICATION SEE UL PRODUCTS
CERTIFIED FOR CANADA DIRECTORY AND
UL FIRE RESISTANCE DIRECTORY—PN



SafeLite Fixture Protection

Maintains Ceiling Assembly Fire Ratings

(Comply with CODE and UL/ULC listings to Limit Liability Exposure)

Maintains Ceiling System Acoustic Performance (CAC)

Reduce Energy Losses / Expenses

The only UL Listed enclosure with up to **3 hour designs**

SafeLite for: can lights, speakers, 2 x 2', 2 x 4', 20" x 60" fixtures (including vented)



Don't Sacrifice Ceiling Sound Blocking and Fire Performance

SafeLite® Patented UL Listed Fixture Covers

Maintains Assembly Fire Rating

Restores Sound Blocking (CAC)

Improves Speech Privacy / HIPAA Regs.

Reduces Energy Losses

Covers for all Fixture Styles and Sizes

Made from Natural and Recycled Material

Installs in Minutes





Products & Services

[C & I Insulation](#)[GSD](#)[Fabricated](#)[OEM](#)[Marine](#)[Fire Protection](#)[Acoustical](#)[Specialty](#)[Manufacturing Partners](#)[Product Data Sheets](#)

Learn more at
www.spi-co.com

Find SafeLite in
Masterspec

SafeLite® Fire, Sound Blocking and Energy Saving Ceiling Light Covers

SPI SafeLite® Benefits Include:

- The prefab SafeLite® enclosure offers documented acoustical performance greatly improving speech privacy and reducing unwanted sound transmission through the ceiling. This performance is critical for ceiling/floor sound proofing efforts.
- The lightweight (~ 12 pounds for a 2' x 4' light fixture) construction is quick and easy to install saving considerable time and expense.
- The use of peel and stick insulation pins provides a system that stays in place.
- The rigid board enclosure offers improved durability compared to traditional field constructed ceiling tile or mineral wool enclosures.
- SafeLite® material has an effective R value of 5.25 at 75°F which will contribute to reduced energy costs.
- Covers easily slit to accommodate fixture or ceiling suspension wires and power cable saving time.
- Standoff insulation pins maintain any fixture air space requirements.
- SafeLite® insulation board is made from natural materials and has a recycled content of 80.6% (post-industrial).



More Information on SafeLite®

- [SafeLite® Data Sheet](#)
- [Additional SafeLite® Information](#)
- [SafeLite® Order Form](#)
- [SafeLite Product Specifications](#)
- [SafeLite® Installation Instructions](#)
- [Code Requirements](#)
- [SafeLite® Case History \(Laney\)](#)
- [SafeLite® Case History \(Forever 21\)](#)
- [UL SafeLite Certification Listings - US](#)
- [UL SafeLite Certification Listings - Canada](#)



Questions
Call (855) 519 - 4044
Or email
Fabteam@spi-co.com

