

FIRE RATED ARCHITECTURAL SQUARE CEILING DIFFUSERS

- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

Full Face Models:

4410-UNI, 4420-UNI

Panel Type Models:

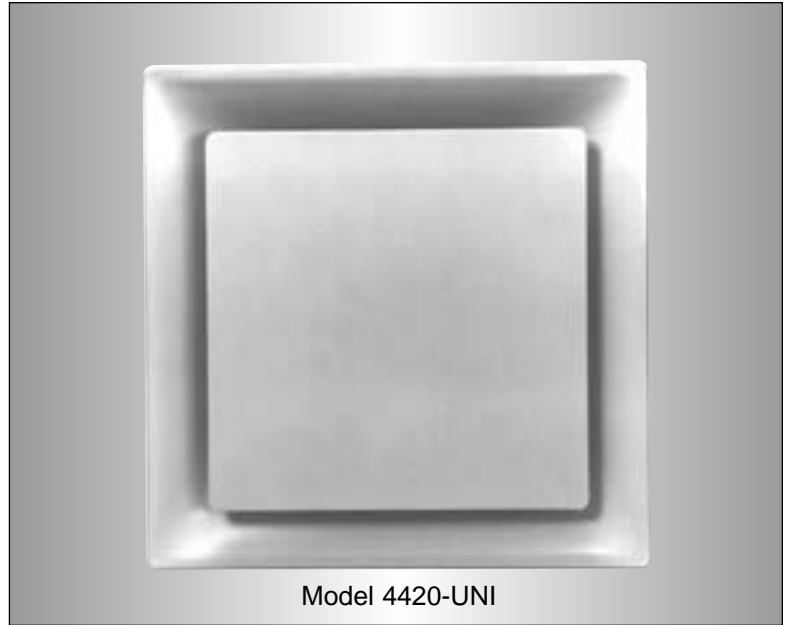
4430-UNI, 4440-UNI



CATEGORY
BZZU



CATEGORY
40U18.1-1/2A



Model 4420-UNI

U

FIRE RATED PRODUCTS

The **Nailor Model Series 4400** are UL/ULC Classified fire rated ceiling diffuser assemblies listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

These models are a fire rated version of the popular **UNI Series**. They have been specially designed to provide the unobtrusive appearance required for architectural excellence and the 360° diffusion pattern at minimum NC levels required for high engineering performance. The stamped one-piece outer cone eliminates mitered corners and the die-formed curves provide consistent quality and performance.

The **UNI** diffuser compliments any decor, blending beautifully with virtually any architectural style or requirement. The **UNI** diffuser provides a stable, tight fit to the ceiling, horizontal air diffusion and mixing pattern under constant and changing load conditions throughout the cataloged range of air volumes, and is particularly suitable for variable air volume applications.

FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- Spring-loaded core is securely held in position and is removable without the use of tools.
- Engineered air diffusion pattern.
- Steel stamped cones for uniformity.
- Face panel is virtually flush with the ceiling line and is double skinned for rigidity and strength. Features a hemmed edge for a professional finish.
- With two cones in all sizes, the diffusers provide a uniform appearance where different neck sizes are installed in the same area.
- RC Retaining Channels are available for ceiling tile installation on the face of the inner cone assembly.
- Unique, concealed neck bracketry is virtually invisible from most angles.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is optional.
- Access to the AV balancing option is achieved by removing the inner cone assembly.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

Material: Heavy gauge corrosion-resistant steel.

Finish: AW Appliance White baked enamel finish is standard. Other finishes are available

Performance Data: See non-fire rated **Model UNI** on page D100.

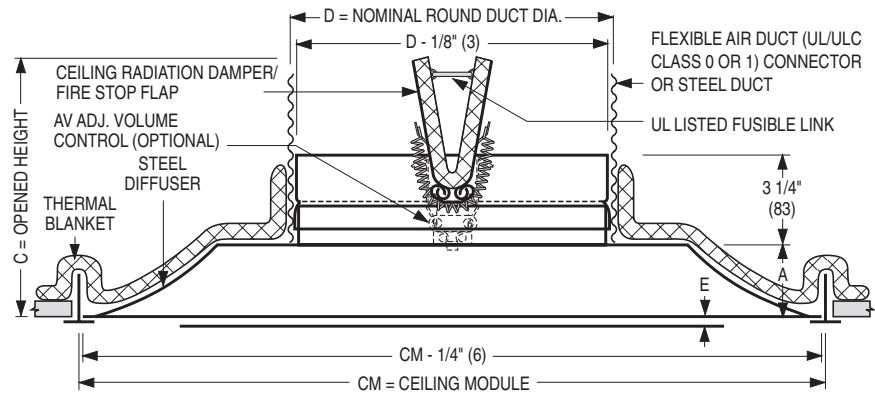
Dimensional Data

Models 4410-UNI and 4420-UNI • Full Face

Model 4410-UNI 12 x 12 (300 x 300) module **Type L Lay-in T-Bar Frame**

Model 4420-UNI 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)				Metric Modules (mm)			
	D	A	C	E	D	A	C	E
	CM = 12 x 12				CM = 300 x 300			
6	6		5 1/2	5/8	152	25	140	16
8	8	1	6 1/2		203		165	
	CM = 24 x 24				CM = 600 x 600			
6	6		6 13/16		152		173	
8	8		7 13/16		203		198	
10	10	2 5/16	8 13/16	3/8	254	59	224	10
12	12		9 13/16		305		249	
14	14		10 13/16		356		275	

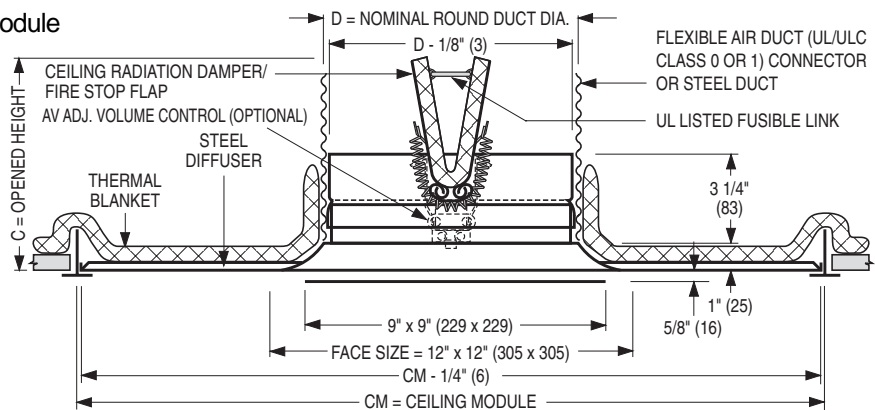


Models 4430-UNI and 4440-UNI • Panel Type

Model 4430-UNI 24 x 12 (600 x 300) module **Type PL Panel Lay-in T-Bar Frame**

Model 4440-UNI 24 x 24 (600 x 600) module

Listed Neck Size	Imperial Modules (inches)		Metric Modules (mm)	
	D	C	D	C
	CM = 24 x 12		CM = 600 x 300	
6	6	5 1/2	152	140
8	8	6 1/2	203	165
	CM = 24 x 24		CM = 600 x 600	
6	6	5 1/2	152	140
8	8	6 1/2	203	165



Architectural Option Model 4420-UNI

The **Model 4420-UNI** diffuser with optional RC Retaining Channel compliments any decor blending beautifully with virtually any architectural style or requirement for a unique 'custom' appearance.

The retaining channel is shipped separately for field installation of a ceiling tile that has been cut to size and installs directly on the face of the inner cone assembly.

The result is a high performance, fire rated diffuser that blends harmoniously with the specified architectural ceiling design.



FIRE RATED FIXED PERFORATED DOWNBLAST DIFFUSER

- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

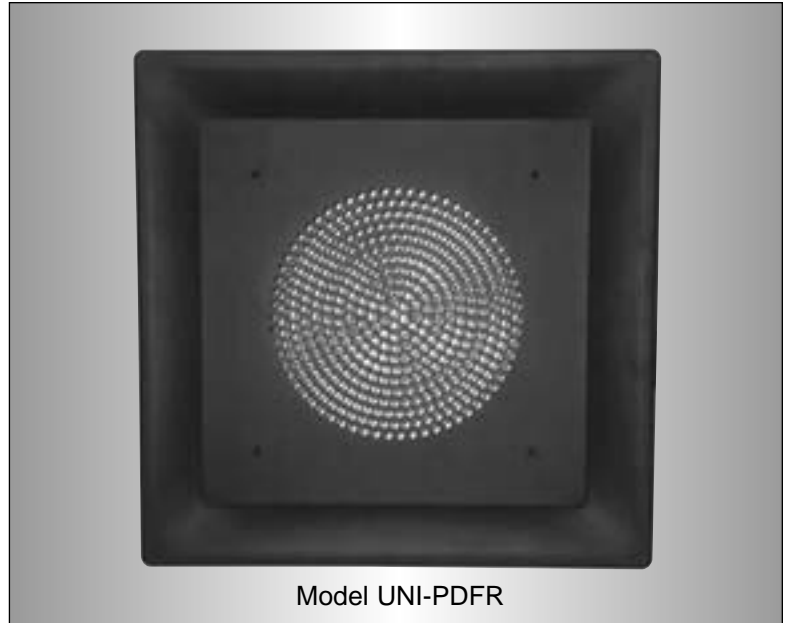
Model:
UNI-PDFR



CATEGORY
BZZU



CATEGORY
40U18.1-1/2A



Model UNI-PDFR

The **Nailor Model UNI-PDFR** is a UL/ULC Classified fire rated ceiling diffuser assembly listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

The **Model UNI-PDFR** has been specially designed to provide both the unobtrusive appearance for architectural excellence and high airflow at minimum NC levels needed in theatre, auditorium and other high ceiling applications. A circular perforated aperture in the diffuser face provides both a horizontal and vertical apportion of the airflow. The horizontal portion provides a tight 360° ceiling diffusion pattern and the vertical portion provides a true and long downward projection.

The **Model UNI-PDFR** heavy duty ceiling diffusers are designed for effective heating and spot cooling applications where conditions and floor to ceiling heights are variable.

FEATURES:

- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- Engineered air diffusion pattern.
- Steel stamped shapes for uniformity.
- Suitable for theatres, auditoriums, factories, warehouses, convention halls, coliseums, shopping malls and other high ceiling applications.
- 360° horizontal discharge pattern plus vertical projection.
- Heavy gauge face plate features a hemmed edge for a professional, clean finish. Perforated face has 3/8" (10) diameter holes on 5/8" (16) staggered centers.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is not available on this model. Balancing should be performed by installing a remote damper at the branch duct take-off.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

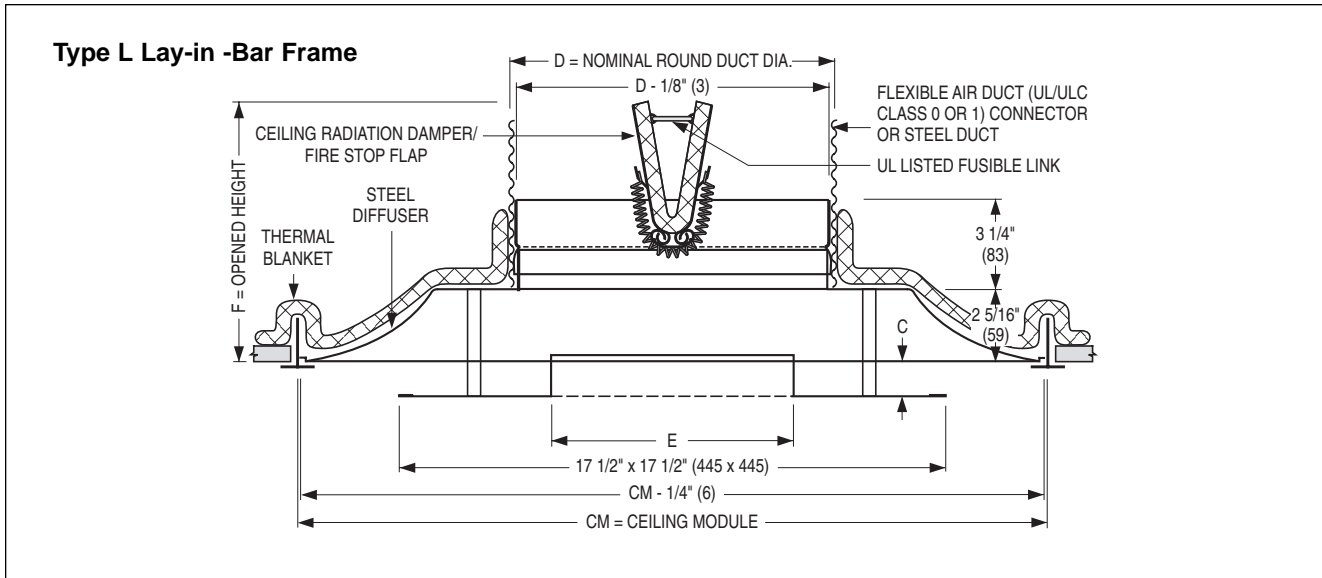
Material: Heavy gauge, corrosion-resistant steel.

Finish: BK Flat Black or AW Appliance White baked enamel. Other finishes are available.

Performance Data: See non-fire rated **Model UNI-PD** on page D106.

Dimensional Data

Model UNI-PDFR



FIRE RATED PRODUCTS

Available Sizes and Dimensional Data

Listed Neck Size	Imperial Modules								Metric Modules			
	Imperial Units (inches)				SI Units (mm)				SI Units (mm)			
	CM = 24 x 24				CM = 610 x 610				CM = 600 x 600			
	D	E	F	C	D	E	F	C	D	E	F	C
12	12	11 1/4	9 13/16	1 3/16	305	286	249	30	305	286	249	30
14	14	11 1/4	10 13/16	1 3/16	356	286	275	30	356	286	275	30

FIRE RATED ADJUSTABLE DOWNBLAST DIFFUSER

- HIGH PERFORMANCE
- ROUND NECK
- 3 HOUR RATING
- LAY-IN

Model:
UNI-ADFR



CATEGORY
BZZU



CATEGORY
40U18.1-1/2A



Model UNI-ADFR

The **Nailor Model UNI-ADFR** is a UL/ULC Classified fire rated ceiling diffuser assembly listed in Underwriters Laboratories Fire Resistance Directory and Underwriters' Laboratories of Canada List of Equipment and Materials. This design meets UL time-vs-temperature test criteria and NFPA 90A requirements.

All diffusers are classified for use in UL/ULC restrained or unrestrained floor/ceiling and or roof/ceiling assemblies which incorporate an exposed grid suspended ceiling (lay-in T-Bar) with up to a 3 hour rating. For details of fire rated assemblies, see the current UL Fire Resistance Directory or ULC List of Equipment and Materials Vol. III Fire Resistant Ratings.

The **Model UNI-ADFR** has been specially designed to provide both the unobtrusive appearance for architectural excellence and high airflow at minimum NC levels needed in theatre, auditorium and other high ceiling applications. Radial vanes in the adjustable face damper permit air pattern adjustment from full horizontal to approximately 50/50 horizontal/vertical. Full adjustment requires only a half turn and is easily accomplished from the floor using the ring operator and a pole (by others).

The **Model UNI-ADFR** heavy duty ceiling diffusers are designed for effective heating and spot cooling applications where conditions and floor to ceiling heights are variable. At the full vertical setting, they provide a true and long downward projection. At full horizontal setting, they produce the tight ceiling pattern that is required for excellent VAV performance.

FEATURES:

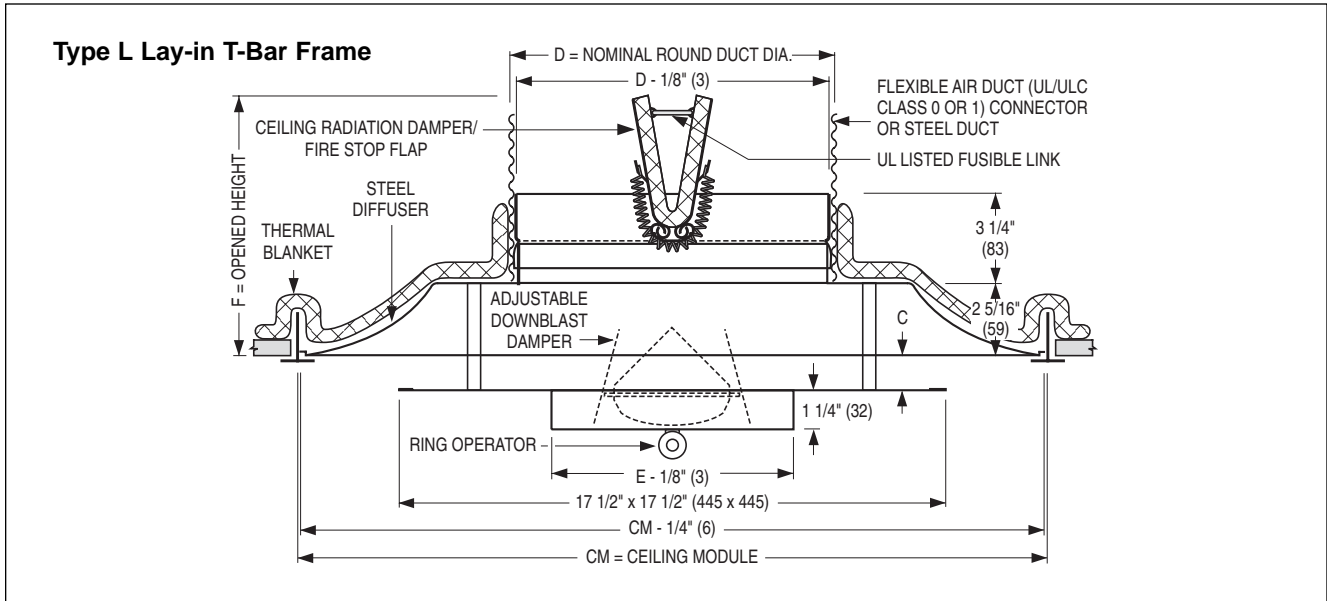
- Factory assembled, 'packaged' product ensures compliance with fire code, simplifies specification and minimizes field labor.
- Tested in accordance with UL Standard 263, "Fire Tests of Building Construction and Materials."
- Approved for use with flexible duct. Eliminates steel branch duct and drop. No costly independent hangers and supports are required.
- Engineered air diffusion pattern.
- Steel stamped shapes for uniformity.
- Suitable for theatres, auditoriums, factories, warehouses, convention halls, coliseums, shopping malls and other high ceiling applications.
- 360° horizontal discharge pattern.
- 0 – 50% airflow vertical projection capability.
- Ring operator can be adjusted using a pole.
- Heavy gauge face plate features a hemmed edge for a professional, clean finish.
- The fixed ceiling radiation damper is standard. The adjustable version for balancing is not available on this model. Balancing should be performed by installing a remote damper at the branch duct take-off.
- 212°F (100°C) fusible link is standard (165°F (74°C) is optional).
- All models must be installed in accordance with the installation instructions for UL/ULC Classification.

Material: Heavy gauge, corrosion-resistant steel.

Finish: BK Flat Black or AW Appliance White baked enamel. Other finishes are available.

Performance Data: See non-fire rated **Model UNI-AD** on page D109.

Dimensional Data Model UNI-ADFR



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FIRE RATED PRODUCTS

Available Sizes and Dimensional Data

Listed Neck Size	Imperial Modules								Metric Modules			
	Imperial Units (inches)				SI Units (mm)				SI Units (mm)			
	CM = 24 x 24				CM = 610 x 610				CM = 600 x 600			
	D	E	F	C	D	E	F	C	D	E	F	C
12	12	8	9 13/16	1 3/16	305	203	249	30	305	203	249	30
14	14	10	10 13/16		356	254	275		356	254	275	