



LIGHT TROFFER DIFFUSER
SUPPLY • SINGLE SIDE
MODEL SERIES: 5410

DESCRIPTION:

- Standard design is for use with flush slot type light troffers and fits most models.
- Custom fabrication available to suit individual light troffer designs.
- Adjustable piano-type hinge pattern controllers.
- Low profile side inlet. Collars are sized for nominal duct connection.
- Option available for regressed slot light troffers.

STANDARD CONSTRUCTION:

MATERIAL: 22 ga. corrosion-resistant steel.
FINISH: BK Black on exposed surfaces.

INLET SELECTION:

- S4 4" (102) Round side
- S5 5" (127) Oval side
- S6 6" (152) Oval side

SPECIFY:

'A' dimension (if non-standard) _____ .

OPTIONS:

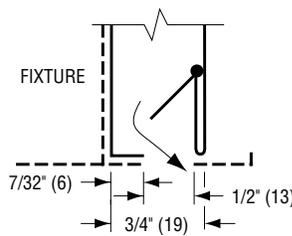
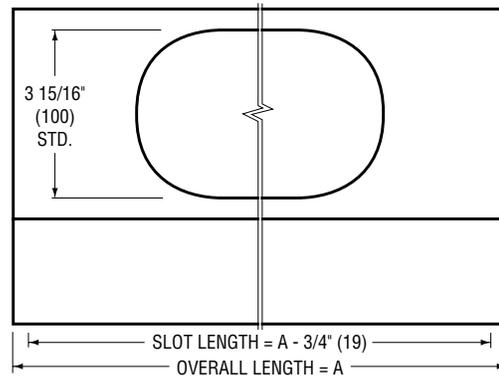
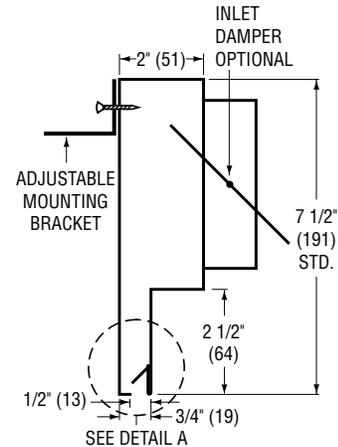
- IN Internal insulation
- EX External foil back insulation
- RS Regressed slot light fixture
- ID Inlet damper

SPECIAL FEATURES:

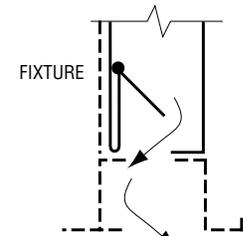
Specify _____ .

NOTE:

The light troffer manufacturer should provide an approved fully dimensioned drawing to ensure compatibility. In some cases, a sample light fixture will be required to be sent to the factory.



DETAIL A



STANDARD MODEL

REGRESSED SLOT OPTION
 (Pattern controller and horizontal lip reversed)

STANDARD DIMENSIONAL DATA:

TROFFER SIZE (CEILING MODULE)			
IMPERIAL MODULES (INCHES)		METRIC MODULES (MM)	
FIXTURE NOM. LENGTH	A	FIXTURE NOM. LENGTH	A
24	17 1/2	600	445
36	25 3/4	900	654
48	41 1/2	1200	1054
60	49 3/4	1500	1264

SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
3 - 8 - 00R	5400	1 - 11 - 99R	5400-1



LIGHT TROFFER DIFFUSER
SUPPLY • DOUBLE SIDE (SADDLE)
MODEL SERIES: 5420

DESCRIPTION:

- Standard design is for use with flush slot type light troffers and fits most models.
- Custom fabrication available to suit individual light troffer designs.
- Adjustable piano-type hinge pattern controllers.
- Top inlet or low profile side inlet models.
- Option available for regressed slot light troffers.
- Inlet collars are sized for nominal duct connection.
- Available with adjustable telescopic cross-over for field sizing to suit light troffer (low profile models only).
- Units are shipped knocked-down for field assembly.

STANDARD CONSTRUCTION:

MATERIAL: 22 ga. corrosion-resistant steel. Gasketed cross-over (saddle) secured by four #8 self-tapping sheet metal screws per side.

FINISH: BK Black on exposed surfaces.

INLET SELECTION:

- | | |
|--|--|
| Side Inlet | Top Inlet |
| <input type="checkbox"/> S4 4" (102) Round | <input type="checkbox"/> T4 4" (102) Round |
| <input type="checkbox"/> S5 5" (127) Oval | <input type="checkbox"/> T5 5" (127) Round |
| <input type="checkbox"/> S6 6" (152) Oval | <input type="checkbox"/> T6 6" (152) Round |
| <input type="checkbox"/> S8 8" (203) Oval | <input type="checkbox"/> T7 7" (178) Round |
| | <input type="checkbox"/> T8 8" (203) Round |

SPECIFY:

'B' dimension (always required unless TE option specified) _____.

'A' dimension (if non-standard) _____.

OPTIONS:

- IN Internal insulation
- EX External foil back insulation
- HC High clearance model
- RS Regressed slot light fixture
- TE Telescopic adjustable cross-over (side only)
- ID Inlet damper (side only)

SPECIAL FEATURES:

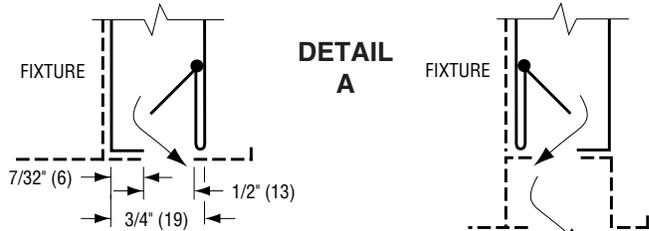
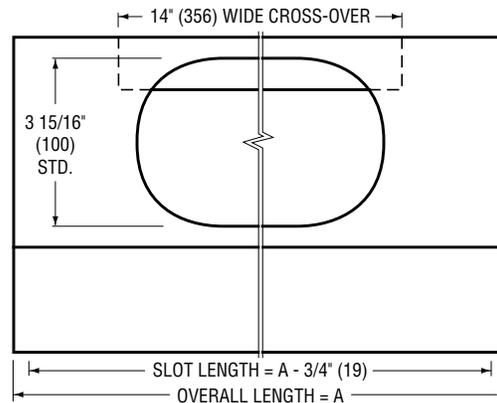
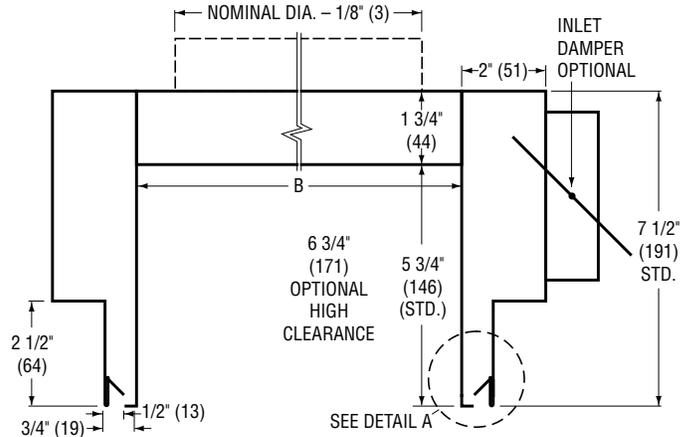
Specify _____.

NOTE:

The light troffer manufacturer should provide an approved fully dimensioned drawing to ensure compatibility. In some cases, a sample light fixture will be required to be sent to the factory.

TE TELESCOPIC OPTION:

UNIT WIDTH	'B' DIM. ADJUSTMENT
20" (500)	15" - 18" (381 - 457)
24" (600)	19" - 22" (483 - 559)
30" (750)	25" - 28" (635 - 711)
36" (900)	31" - 34" (787 - 864)



STANDARD MODEL

REGRESSED SLOT OPTION
 (Pattern controller and horizontal lip reversed)

STANDARD DIMENSIONAL DATA:

TROFFER SIZE (CEILING MODULE)			
IMPERIAL MODULES (INCHES)		METRIC MODULES (MM)	
FIXTURE SIZE W x L	A	FIXTURE SIZE W x L	A
12 x 48	41 1/2	300 x 1200	1054
20 x 60	41 1/2	500 x 1500	1054
24 x 24	17 1/2	600 x 600	445
24 x 48	41 1/2	600 x 1200	1054
30 x 30	23 1/2	750 x 750	597
36 x 36	25 3/4	900 x 900	654

SCHEDULE TYPE:

PROJECT:

ENGINEER:

CONTRACTOR:

Dimensions are in inches (mm).

DATE

B SERIES

SUPERSEDES

DRAWING NO.

2 - 26 - 13

5400

22 - 6 - 01R

5400-2



LIGHT TROFFER DIFFUSER
RETURN • SINGLE SIDE
MODEL SERIES: 5410R

DESCRIPTION:

- Standard design is for use with flush slot type light troffers and fits most models.
- Custom fabrication available to suit individual light troffer designs.
- For non-ducted plenum return applications.
- Effectively blocks light leakage from the ceiling space.
- Optional air volume damper/controller. Adjustable through light fixture slot opening for return air balancing.
- Option available for regressed slot light troffers.

STANDARD CONSTRUCTION:

MATERIAL: 22 ga. corrosion-resistant steel.

FINISH: BK Black on exposed surfaces.

SPECIFY:

'A' dimension (if non-standard) _____ .

OPTIONS:

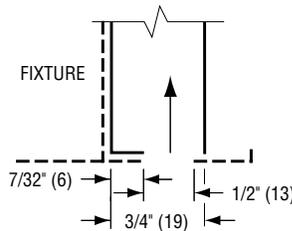
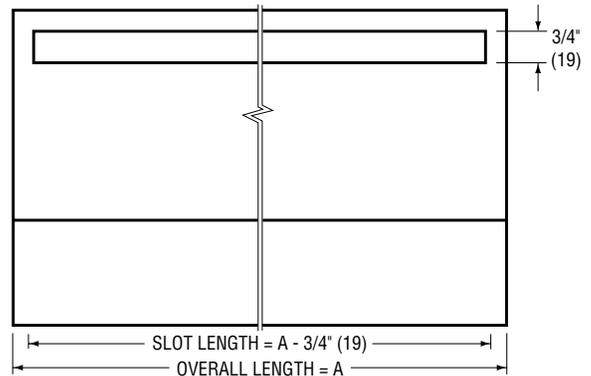
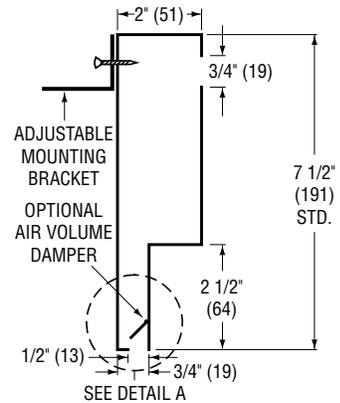
- IN Internal insulation
- EX External foil back insulation
- RS Regressed slot light fixture
- ID Inlet Damper

SPECIAL FEATURES:

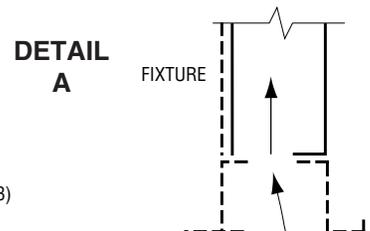
Specify _____ .

NOTE:

The light troffer manufacturer should provide an approved fully dimensioned drawing to ensure compatibility. In some cases, a sample light fixture will be required to be sent to the factory.



STANDARD MODEL



REGRESSED SLOT OPTION
(Horizontal lip reversed)

STANDARD DIMENSIONAL DATA:

TROFFER SIZE (CEILING MODULE)			
IMPERIAL MODULES (INCHES)		METRIC MODULES (MM)	
FIXTURE SIZE	A	FIXTURE SIZE	A
W		W	
24	17 1/2	600	445
36	25 3/4	900	654
48	41 1/2	1200	1054
60	49 3/4	1500	1264

SCHEDULE TYPE:	
PROJECT:	
ENGINEER:	
CONTRACTOR:	

Dimensions are in inches (mm).

DATE	B SERIES	SUPERSEDES	DRAWING NO.
3 - 8 - 00R	5400	5400-1/5-89	5400-3

PERFORMANCE DATA:

MODEL: 5410

Single Side • 24" Long Light Troffer • 5" Oval Inlet

Airflow, CFM	30	40	50	60	70	80	90
Total Pressure	.040	.060	.100	.130	.170	.220	.360
Static Pressure	.030	.050	.090	.120	.150	.200	.330
Noise Criteria	15	23	29	34	38	43	46
Throw	2-5	3-7	4-8	5-10	6-11	7-12	8-13

Single Side • 36" Long Light Troffer • 5" Oval Inlet

Airflow, CFM	40	50	60	70	80	90	100	110
Total Pressure	.050	.070	.110	.140	.180	.220	.260	.320
Static Pressure	.040	.060	.100	.120	.160	.190	.230	.280
Noise Criteria	–	20	25	29	33	37	40	43
Throw	3-6	3-7	4-8	5-10	6-12	6-14	8-15	9-16

Single Side • 48" and 60" Long Light Troffer • 6" Oval Inlet

Airflow, CFM	40	50	60	70	80	90	100	110	120
Total Pressure	.030	.060	.080	.110	.130	.160	.220	.280	.300
Static Pressure	.030	.050	.070	.100	.120	.150	.200	.260	.280
Noise Criteria	–	–	17	21	25	29	34	36	40
Throw	2-5	3-7	4-7	5-9	6-11	7-12	7-14	8-15	9-16

Performance Notes:

- Performance data is based on typical samples of light troffers. Performance may vary with other makes and models of light troffers.
- Throws are given at 150 and 50 fpm terminal velocities, under isothermal conditions.
- All pressures are in inches w.g..
- Noise Criteria [NC] values based on a room absorption of 10 dB, re 10⁻¹² watts. Dash (–) in space denotes an Noise Criteria level less than 15.
- Data derived from independent tests conducted in accordance with ANSI/ASHRAE Standard 70-2023.

Length in feet	Ak Factor per foot	
	Single	Double
2	.057	.093
3	.089	.145
4	.120	.197

PERFORMANCE DATA:

MODEL: 5420

Double Side • 24" Long Light Troffer • 5" Round Inlet • Top Inlet

Airflow, CFM	60	70	80	100	120	140	160	180	200
Total Pressure	.070	.100	.120	.170	.250	.340	.370	.410	.450
Static Pressure	.060	.090	.100	.140	.200	.260	.280	.300	.310
Noise Criteria	–	23	26	30	34	36	40	41	42
Throw	2-4	2-5	3-7	4-8	5-9	5-10	6-11	7-12	7-12

Double Side • 48" and 60" Long Light Troffer • 8" Round Inlet • Top Inlet

Airflow, CFM	60	80	100	120	140	160	180	200	220
Total Pressure	.030	.070	.080	.090	.130	.180	.230	.270	.350
Static Pressure	.030	.060	.070	.080	.120	.170	.210	.250	.320
Noise Criteria	–	–	–	18	23	26	28	29	35
Throw	1-3	2-5	3-6	4-7	4-8	5-9	5-11	6-13	7-15

Double Side • 24" Long Light Troffer • 6" Oval Inlet • Side Inlet

Airflow, CFM	60	70	80	100	120	140	160	180	200
Total Pressure	.080	.110	.120	.170	.250	.320	.350	.370	.400
Static Pressure	.070	.100	.110	.150	.230	.290	.310	.320	.340
Noise Criteria	22	25	27	33	35	37	42	43	45
Throw	2-4	2-5	3-7	4-8	5-9	5-10	6-11	7-12	7-12

Double Side • 48" and 60" Long Light Troffer • 6" Oval Inlet • Side Inlet

Airflow, CFM	60	80	100	120	140	160	180	200	220
Total Pressure	.040	.070	.090	.110	.160	.210	.280	.330	.410
Static Pressure	.030	.060	.080	.090	.140	.180	.240	.280	.352
Noise Criteria	–	–	–	22	27	29	32	34	37
Throw	1-3	2-5	3-6	4-7	4-8	5-9	5-11	6-13	7-15

Performance Notes:

- Performance data is based on typical samples of light troffers. Performance may vary with other makes and models of light troffers.
- Throws are given at 150 and 50 fpm terminal velocities, under isothermal conditions.
- All pressures are in inches w.g..
- Noise Criteria [NC] values based on a room absorption of 10 dB, re 10⁻¹² watts. Dash (–) in space denotes an Noise Criteria level less than 15.
- Data derived from independent tests conducted in accordance with ANSI/ASHRAE Standard 70-2023

Length in feet	Ak Factor per foot	
	Single	Double
2	.057	.093
3	.089	.145
4	.120	.197