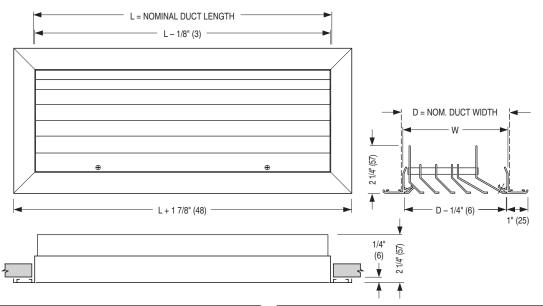
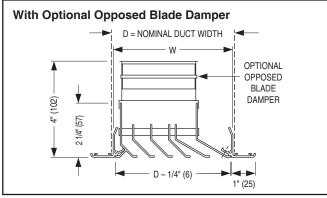


#### **LINEAR VANE DIFFUSERS**

EXTRUDED ALUMINUM • ARCHITECTURAL FIXED VANES • ONE-WAY PATTERN

MODEL: 48LV1





# D - 1/4" (6)

With Optional Directional Vanes

#### **DESCRIPTION:**

- 1. Material: Extruded aluminum construction.
- Nailor 48LV1 provides crisp architectural styling for supply and return air applications. The fixed linear vanes produce a tight horizontal discharge pattern and provide excellent performance in VAV applications.
- 3. Frame/Border is Type A with 1" (25) flange.
- 4. Available in listed widths only.
- 5. Minimum length is 8" (203). Maximum single section length is 96" (2438). Sizes over 96" (2438) will be supplied in multiple section assemblies with alignment strips for a clean and continuous appearance.
- 6. Mitered endcaps are standard.
- 7. Removable core is secured with countersunk screws.
- 8. Fastening: Type N is standard. Designed for duct mounted installation with concealed screws through the neck of the outer frame, providing an aesthetically clean visual appearance.
- 9. Standard finish is AW Appliance white.

#### **Available Widths**

(22)

Listed Width W	 4 1/4 (108)	5 (127)	 6 1/2 (165)		11 3/4 (298)
Nom. Duct Width D	 4 3/8 (111)		 	 9 5/8 (244)	

D = NOMINAL DUCT WIDTH

OPTIONAL

DIRECTIONAL

VANES

#### **OPTIONS:**

Damper:

- ☐ OBD Steel opposed blade damper.
- ☐ OBDA Aluminum opposed blade damper.
- DV Directional vanes (not available with OBD).

Finish:

- ☐ AL Aluminum.
- ☐ SP Special, Specify \_\_\_\_\_.

Fastening:

☐ Type A Screw Holes (in outer frame).

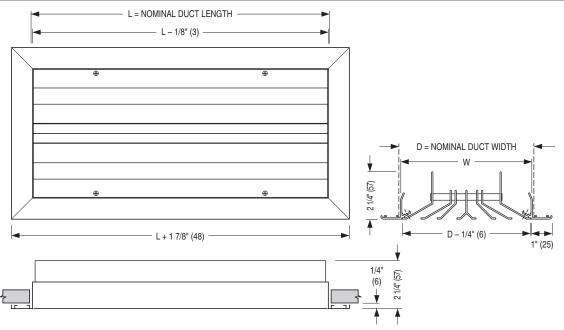
SCHEDULE TYPE:	Di-	manaiana ara	in inches (m	um)
PROJECT:	ווט	mensions are	e in inches (m	ш).
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	7 - 11 - 23	48LV	10 - 8 - 20	48LV1

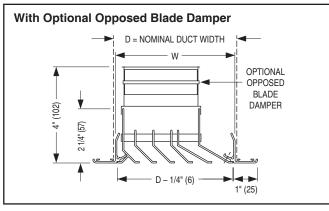


#### **LINEAR VANE DIFFUSERS**

EXTRUDED ALUMINUM • ARCHITECTURAL FIXED VANES • TWO-WAY PATTERN

MODEL: 48LV2





# With Optional Directional Vanes D = NOMINAL DUCT WIDTH OPTIONAL D = 1/4\* (6) 1\* (25)

#### DESCRIPTION:

- 1. Material: Extruded aluminum construction.
- Nailor 48LV2 provides crisp architectural styling for supply and return air applications. The fixed linear vanes produce a tight horizontal discharge pattern and provide excellent performance in VAV applications.
- 3. Frame/Border is Type A with 1" (25) flange.
- 4. Available in listed widths only.
- Minimum length is 8" (203). Max. single section length is 96" (2438). Sizes over 96" (2438) will be supplied in multiple section assemblies with alignment strips for a clean and continuous appearance.
- 6. Mitered endcaps are standard.
- 7. Removable core is secured with countersunk screws.
- 8. Fastening: Type N is standard. Designed for duct mounted installation with concealed screws through the neck of the outer frame, providing an aesthetically clean visual appearance.
- 9. Standard finish is AW Appliance white.

#### **Available Widths**

Listed	6 1/4	7 3/4	9 1/4	10 3/4	12 1/4
Width W	(159)	(197)	(235)	(273)	(311)
Nom. Duct	6 3/8	7 7/8	9 3/8	10 7/8	12 3/8
Width D	(162)	(200)	(238)	(277)	(315)

#### **OPTIONS:**

Damper:

- ☐ OBD Steel opposed blade damper.
- ☐ OBDA Aluminum opposed blade damper.
- ☐ DV Directional vanes (not available with OBD).

Finish:

- ☐ AL Aluminum.
- ☐ SP Special, Specify \_\_\_\_\_

Fastening:

☐ Type A Screw Holes (in outer frame).

SCHEDULE TYPE:	D:	moneione are	in inches (m	m)
PROJECT:	Dimensions are in inches (mm).			
ENGINEER:	DATE	B SERIES	SUPERSEDES	DRAWING NO.
CONTRACTOR:	7 - 11 - 23	48LV	10 - 8 - 20	48LV2

#### **PERFORMANCE DATA:**

### Model: 48LV1 • One-Way Pattern

Nominal Duct Width Size								
	Airflow, CFM/FT	21	31	41	51	61	71	81
2 4 /211	Total Pressure	.004	.008	.014	.021	.030	.041	.053
3 1/2"	Noise Criteria	-	-	22	27	31	35	38
	Ceiling Throw	6-9-14	8-12-17	11-14-20	13-16-22	14-17-24	15-19-26	16-20-28
	Airflow, CFM/FT	30	45	60	75	90	105	120
4 1/4"	Total Pressure	.005	.012	.021	.032	.047	.063	.083
4 1/4	Noise Criteria	-	17	25	30	35	38	41
	Ceiling Throw	6-9-17	9-14-21	12-17-24	16-19-27	17-21-30	18-23-32	20-24-34
	Airflow, CFM/FT	40	60	80	100	120	140	160
5"	Total Pressure	.007	.015	.026	.041	.059	.080	.105
	Noise Criteria	-	18	26	31	36	39	42
	Ceiling Throw	7-10-20	10-15-24	14-20-28	17-22-31	20-24-34	21-26-37	23-28-39
	Airflow, CFM/FT	52	78	104	130	156	182	208
E 0/4II	Total Pressure	.009	.019	.034	.054	.078	.106	.138
5 3/4"	Noise Criteria	-	21	28	33	37	41	44
	Ceiling Throw	8-12-22	12-18-27	16-22-32	20-25-35	22-27-39	24-30-42	26-32-45
	Airflow, CFM/FT	67	100	133	166	199	232	265
C 1/2"	Total Pressure	.011	.025	.044	.068	.098	.133	.173
6 1/2"	Noise Criteria	-	22	29	34	39	42	45
	Ceiling Throw	9-14-25	14-20-31	18-25-36	23-28-40	25-31-44	27-34-47	29-36-51
	Airflow, CFM/FT	90	135	180	225	270	315	360
8"	Total Pressure	.013	.030	.054	.084	.121	.165	.216
0	Noise Criteria	-	23	29	35	39	43	46
	Ceiling Throw	10-16-30	16-24-36	21-30-42	26-33-47	30-36-51	32-39-55	34-42-59
	Airflow, CFM/FT	115	173	231	289	347	405	463
9 1/2"	Total Pressure	.016	.035	.063	.098	.142	.193	.252
9 1/2	Noise Criteria	-	22	29	35	39	43	46
	Ceiling Throw	12-18-33	18-27-41	24-33-47	30-37-53	33-41-58	36-44-63	39-47-67
	Airflow, CFM/FT	160	238	316	394	472	550	628
44 2/40	Total Pressure	.020	.044	.078	.121	.174	.236	.308
11 3/4"	Noise Criteria	-	23	30	35	39	43	46
	Ceiling Throw	14-22-39	21-32-48	28-39-55	35-44-62	39-48-68	42-52-73	45-55-78

#### **Throw Correction Factors for Various Lengths**

Length (ft.)	2	3	4	5	6	8	10	12
Multiplier	.70	.86	1.0	1.1	1.25	1.4	1.55	1.7

## **Noise Criteria Correction Factors for Various Lengths**

Length (ft.)	2	3	4	5	6	8	10
Supply	- 3	- 1	0	+ 1	+ 2	+ 3	+ 5

#### **Performance Notes:**

- 1. Horizontal throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
- 2. Throw values are based on a 4 ft. section. For other lengths, use the correction factor table above.
- 3. Total Pressure is in inches w.g..
- 4. Noise Criteria [NC] values are based on a 4 ft. section and a room absorption of 10 dB, re 10-12 watts. For other lengths, use the correction factor table shown.
- 5. Return Air Applications:
  - Noise Criteria value is increased by + 4.
  - Negative Static Pressure = 0.8 x Total Pressure.
- 6. Dash (-) in space indicates an Noise Criteria level of less than 15.
- 7. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70-2006.

**Nailor** 

# **PERFORMANCE DATA:**

# Model: 48LV2 • Two-Way Pattern

Nominal Duct Width Size								
	Airflow, CFM/FT	41	62	83	104	125	146	167
C 4 //III	Total Pressure	.005	.012	.021	.033	.048	.066	.086
6 1/4"	Noise Criteria	-	18	26	31	36	39	43
	Ceiling Throw	5-8-14	8-12-17	10-14-19	12-15-22	14-17-24	15-18-26	16-19-27
	Airflow, CFM/FT	62	94	126	158	190	222	254
7 3/4"	Total Pressure	.008	.018	.032	.050	.072	.099	.129
7 3/4	Noise Criteria	-	21	28	34	38	42	45
	Ceiling Throw	6-9-17	9-14-21	13-17-24	15-19-27	17-21-29	18-22-32	20-24-34
	Airflow, CFM/FT	84	126	168	210	252	294	336
0.4/40	Total Pressure	.010	.022	.040	.062	.089	.122	.159
9 1/4"	Noise Criteria	-	22	29	34	39	42	46
	Ceiling Throw	7-11-19	11-16-24	15-19-27	18-22-31	19-24-34	21-26-36	22-27-39
	Airflow, CFM/FT	107	161	215	269	323	377	431
10 3/4"	Total Pressure	.012	.027	.048	.075	.109	.148	.193
10 3/4	Noise Criteria	-	23	30	35	39	43	46
	Ceiling Throw	8-12-22	12-19-27	17-22-31	20-25-35	22-27-38	24-29-41	25-31-44
	Airflow, CFM/FT	131	197	263	329	395	461	527
10 1/4"	Total Pressure	.014	.031	.055	.087	.125	.170	.223
12 1/4"	Noise Criteria	-	24	31	36	40	44	48
	Ceiling Throw	9-14-24	14-21-30	18-24-34	22-27-38	24-30-42	26-32-46	28-34-49

#### **Throw Correction Factors for Various Lengths**

Length (ft.)	2	3	4	5	6	8	10	12
Multiplier	.70	.86	1.0	1.1	1.25	1.4	1.55	1.7

# Performance Notes:

- 1. Horizontal throws are given at 150, 100 and 50 fpm terminal velocities under isothermal conditions.
- 2. Throw values are based on a 4 ft. section. For other lengths, use the correction factor table above.
- 3. Total Pressure is in inches w.g..
- 4. Noise Criteria [NC] values are based on a 4 ft. section and a room absorption of 10 dB, re 10<sup>-12</sup> watts. For other lengths, use the correction factor table shown.

#### **Noise Criteria Correction Factors for Various Lengths**

Length (ft.)	2	3	4	5	6	8	10
Supply	- 3	- 1	0	+ 1	+ 2	+ 3	+ 5

- 5. Return Air Applications:
  - Noise Criteria value is increased by + 4. Negative Static Pressure = 0.8 x Total Pressure.
- 6. Dash (-) in space indicates an Noise Criteria level of less than 15.
- 7. Data derived from tests conducted in accordance with ANSI/ASHRAE Standard 70–2006.