

MODEL DCFL-D-4

4" DEEP HURRICANE LOUVER

MIAMI-DADE APPROVED

MIAMI-DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE #: 08-0902.08 (EXPIRES 01-17-11)
FLORIDA BUILDING CODE PRODUCT APPROVAL #: FL3281-R2

Application and Features

The Model DCFL-D-4 is a louver designed to protect the outside opening in building exterior walls. It is engineered for use in Dade County and its municipalities as well as other regions that use Dade County codes. These louvers may be used for exhaust or intake air.

STANDARD CONSTRUCTION:

FRAME:

.125 Extruded Aluminum 4.16" deep.

BLADES:

.081 Extruded Aluminum Positioned on a 37° angle on approximately 2.88" centers.

BIRDSCREEN:

3/4" X .051 Flattened Aluminum in Removable Frame. Screen is mounted on inside (rear) as looking from exterior of building.

FINISH:

mill aluminum (std.)

MINIMUM SIZE:

12"w x 12"h

MAXIMUM SIZE:

72"w x 72"h single section
 Larger sizes made in multiple sections with vertical mullions.

OPTIONS:

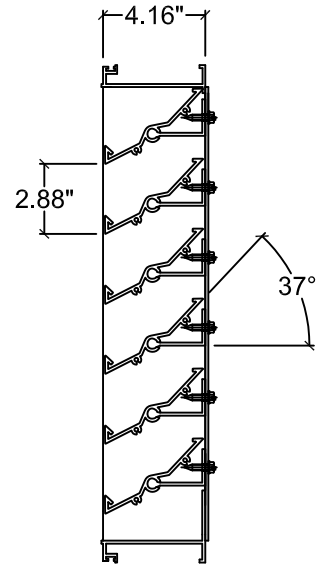
- Flanged Frame (1-1/2" std.)
- Custom Flange (1", 2" , or 3")
- Extended Sill
- Insect Screen
- Filter Racks(no screen)
- Security Bars

AVAILABLE FINISHES:

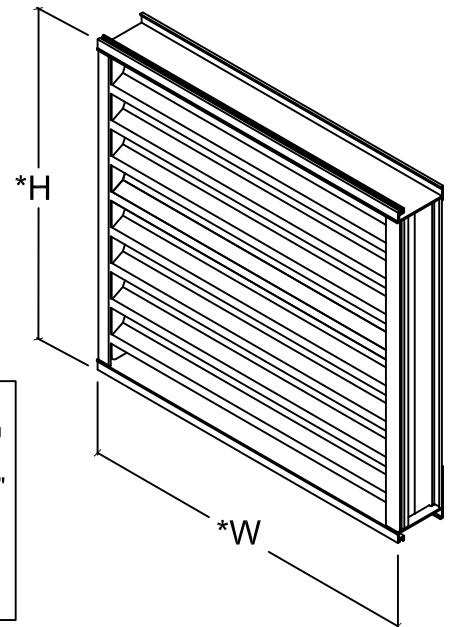
- Powder Polyester TGIC** (2 coats) baked on at 410°F -2.5 to 3.5 mils Meets AAMA-2603 Standards
- Powder Super durable polyester** (2 coats) baked on at 410°F -2.5 to 3.5 mils Meets AAMA-2604-05 Standards
- Acrylic baked enamel** (ACRA-BOND® ULTRA) by AkzoNobel baked on at 350°F -0.8 to 1.2 mils dry Meets AAMA-2603 Standards
- Kynar®** (ALUM*A*STAR®) 2 coats by AkzoNobel baked on at 450°F -1.2 to 1.6 mils dry Meets AAMA-2605-05 Standards
- Kynar 500®** or **HYLAR® 5000** 70% **TRINAR®** (2 coats) by AkzoNobel baked on at 450°F -1.2 to 1.6 mils dry, Meets AAMA-2605-05 Standards
- Kynar 500®** or **HYLAR® 5000** (70% Tri-Escent II) (2 coats) by AkzoNobel, a superior finish to other metallic or anodized finishes. A blend of mica, ceramic, and inorganic pigments creates subtle yet dazzling design that goes beyond metallic color without the requirement of a clear coat. 14 standard colors - custom colors available. Baked on at 415°F -1.4 to 1.8 mils dry, meets AAMA 2605-05.
- Clear Anodize** 204 R-1 Class II (AA-C22A31)(0.4 to 0.7 mil)
- Clear Anodize** 215 R-1 Class I (AA-C22A41)(>0.7 mil)
- Integral Color Anodize** (AA-C22A42)(>0.7 mil)
 - Clear coat available for all above finishes.
 - Hylar® 5000 is a registered trademark of Solvay Solexis, Inc.
 - Kynar® 500 is a registered trademark of Arkema.
 - ALUM*A*STAR® 50 and TRINAR® are registered trademarks of AkzoNobel
 - ACRA-BOND® ULTRA is a registered trademark of AkzoNobel

Maximum Design Pressure Rating
 +150.0, -150.0 psf
 Large Missile Impact Resistance

Product approval in accordance with 2007 edition-Florida Building Code. Design wind loads shall be determined as per section 1619 of the above mentioned code, for basic wind speed of 146 mph and in accordance with ASCE-7-98 Standard



NOTE: Please specify the following for proper construction of mounting hardware.
 Wall Thickness _____"
 Design Wind Load _____"
 Substrate _____
 (Wood, Steel, Poured Concrete, or Concrete Block)



*Width and Height dimensions are approximately 1/4" under listed size.

Due to continuing research, United Enertech reserves the right to change specifications without notice.

		3005 South Hickory Street Chattanooga, Tennessee 37407 Tel: (423) 698-7715 Fax: (423) 698-6629 www.unitedenertech.com			
		MODEL DCFL-D-4 (Hurricane Louver w/ drainable blades and jamb gutter downspouts)			
DRAWN BY: CLJ	DATE: January 2002	REV. DATE: April 2010	REV. NO. 11	APPROVED BY: BGT	DWG. NO.: A-21

Suggested Specification

Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall be Miami-Dade approved, hurricane resistant, drainable type with drain gutters in each blade and downspouts in jambs. Stationary drainable blades shall be contained within a 4.19" deep frame. Louver components (heads, jambs, sills, blades & mullions) shall be factory assembled by the louver manufacturer. Louver sizes too large for shipping shall be built up by the contractor from factory assembled louver sections and mullion support tubes to provide overall sizes required. Louver design shall incorporate structural supports required to withstand a maximum wind load of 150 psf.

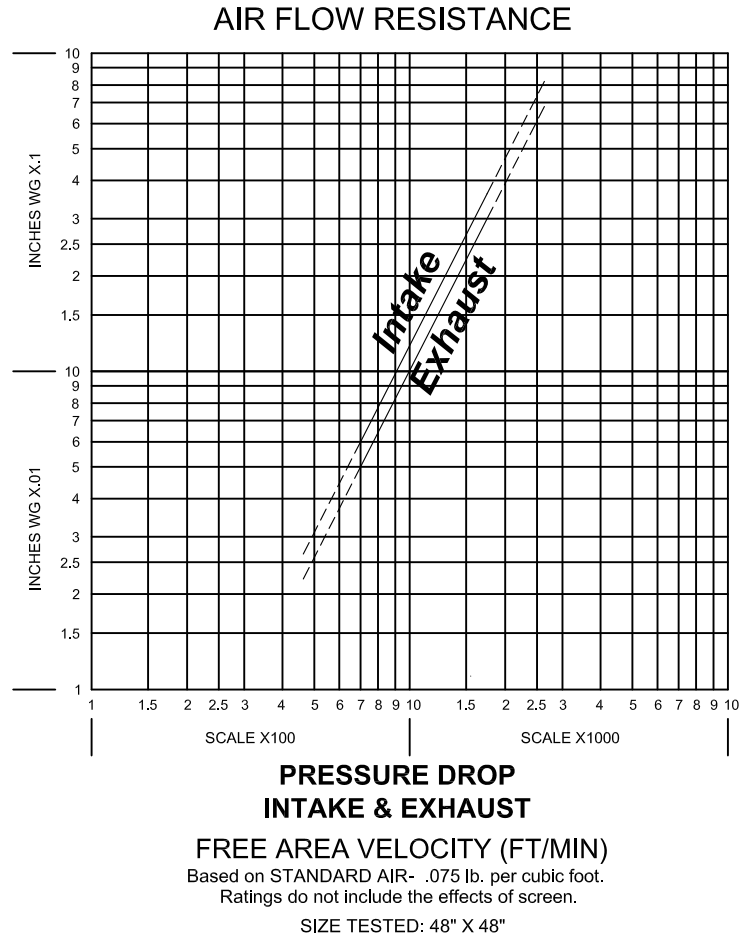
Performance Data

AMCA Standard 500 provides a reasonable basis for testing and rating louvers. Testing to AMCA 500 is performed under a certain set of laboratory conditions. This does not guarantee that other conditions will not occur in the actual environment where louvers must operate. The louver system should be designed with a reasonable safety factor for louver performance. To ensure protection from water carryover, design with a performance level somewhat below maximum desired pressure drop and .01 oz./sq.ft. of water penetration. Ratings do not include the effect of bird screen. Size tested: 48" x 48".

Beginning Point of WATER PENETRATION lies above
1250 fpm
 the maximum recommended FREE AREA VELOCITY
 (15 minute test duration)



United Enertech Corporation Certifies that the louver model DCFL-D-4 is licensed to bear the AMCA Seal. The ratings shown are based on tests and procedures performed in accordance with the AMCA publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings Seal applies to air performance and water penetration ratings.



MODEL DCFL-D-4 FREE AREA CHART (SQUARE FEET)

Louver Height Inches	Louver Width In Inches											Louver Height Inches
	12	18	24	30	36	42	48	54	60	66	72	
12	0.32	0.51	0.71	0.91	1.10	1.30	1.50	1.70	1.89	2.09	2.29	12
18	0.55	0.90	1.24	1.59	1.93	2.28	2.63	2.97	3.32	3.66	4.01	18
24	0.80	1.30	1.80	2.30	2.80	3.30	3.80	4.30	4.80	5.30	5.80	24
30	0.99	1.61	2.23	2.84	3.46	4.08	4.70	5.31	5.93	6.55	7.17	30
36	1.21	1.97	2.73	3.48	4.24	4.99	5.75	6.51	7.26	8.02	8.78	36
42	1.47	2.38	3.30	4.22	5.13	6.05	6.96	7.88	8.79	9.71	10.63	42
48	1.69	2.75	3.80	4.86	5.91	6.96	8.02	9.07	10.13	11.18	12.24	48
54	1.92	3.12	4.32	5.52	6.72	7.92	9.11	10.31	11.51	12.71	13.91	54
60	2.16	3.50	4.85	6.19	7.53	8.88	10.22	11.57	12.91	14.26	15.60	60
66	2.39	3.88	5.37	6.86	8.35	9.84	11.33	12.82	14.31	15.80	17.29	66
72	2.63	4.26	5.90	7.54	9.18	10.81	12.45	14.09	15.73	17.36	19.00	72

MIAMI-DADE COUNTY HURRICANE STRUCTURAL TEST PERFORMANCE

SIZE TESTED: 146"w x 72"h

DCBCCD PA 201-94 LARGE MISSILE IMPACT TEST:

MISSILE TYPE	VELOCITY IN FT/SEC (M/SEC)	IMPACTS
9 lb. Southern Yellow Pine 2"x4"x88-1/2"long	50 (15.24)	7

DCBCCD PA 202-94 UNIFORM STATIC AIR PRESSURE TEST:

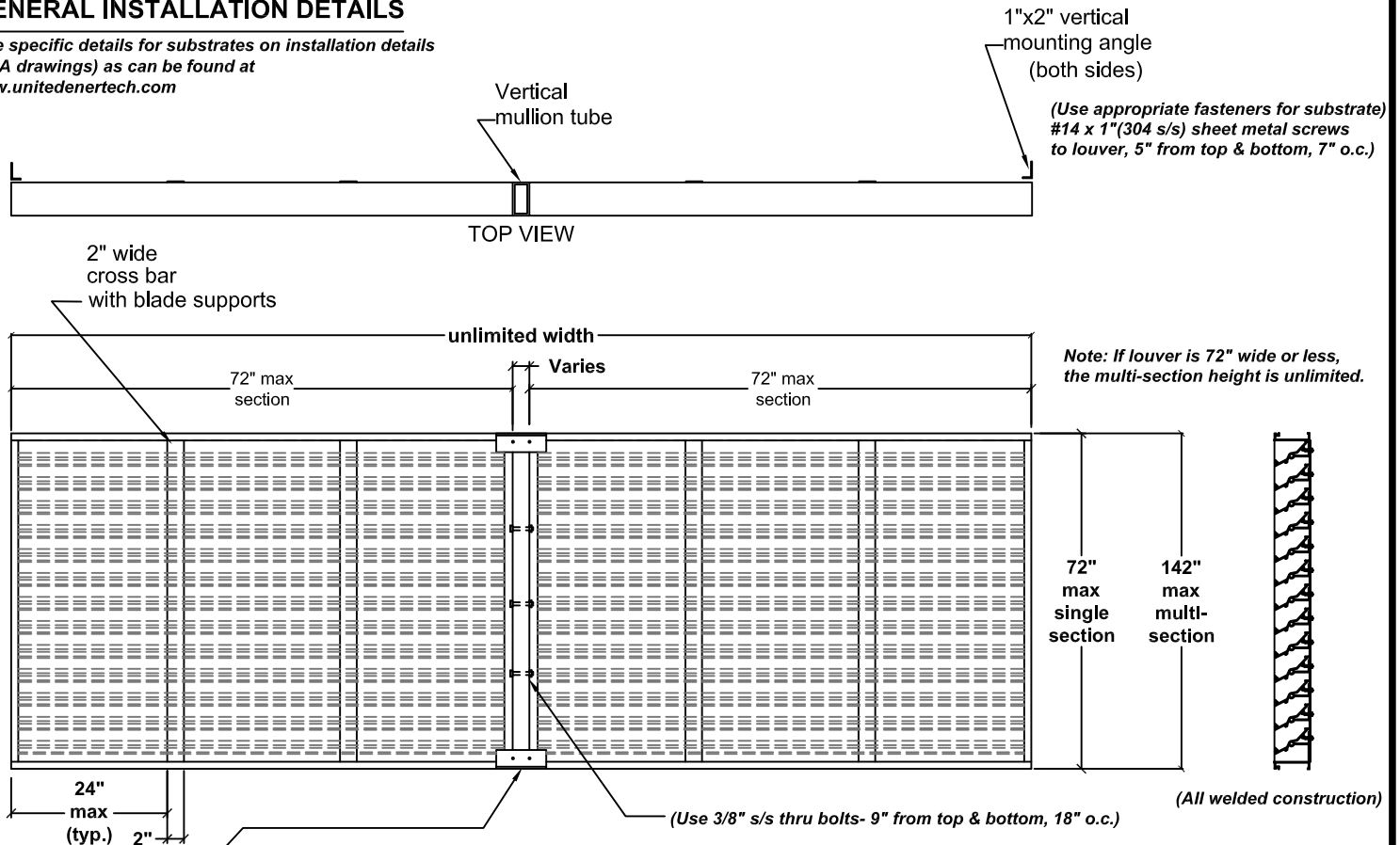
LOAD IN PSF (kPA)	LOAD DURATION	LOUVER RECOVERY
+112.5 (+5.38)	30 seconds	100%
-112.5 (-5.38)	30 seconds	100%
+150 (+7.18)	30 seconds	100%
-150 (-7.18)	30 seconds	100%
+225 (+10.76)	30 seconds	100%
-225 (-10.76)	30 seconds	100%

DCBCCD PA 203-94 FATIGUE LOADING TEST:

CYCLES	LOAD IN PSF (kPA)	LOAD DURATION CYCLE	LOUVER RECOVERY
600	+75 (+3.59)	1 to 3 seconds	100%
600	-75 (-3.59)	1 to 3 seconds	100%
70	+90 (+4.31)	1 to 3 seconds	100%
70	-90 (-4.31)	1 to 3 seconds	100%
1	+195 (+9.33)	1 to 3 seconds	100%
1	-195 (-9.33)	1 to 3 seconds	100%

GENERAL INSTALLATION DETAILS

-See specific details for substrates on installation details (NOA drawings) as can be found at www.unitedenergetech.com



2" x 4" x 1/4" or 5/16" (8" long) Aluminum angle @ each mullion (head & sill) anchored with fasteners per sheet 1 of installation details (NOA drawings) SEE SPECIFIC TYPE DETAILS FOR SUBSTRATES IN INSTALLATION DETAILS FOR MAXIMUM HEIGHTS.

Notes: Cross-bar with blade supports placed as shown above.

PLEASE NOTE: THIS DRAWING IS FOR GENERAL INFORMATION. REFER TO SPECIFIC SUBSTRATE DESIGN CRITERIA FOR EXACT INSTALLATION DETAILS (NOA #08-0902.08)