# **ALL-LITE**

ECD-545

5" deep • 45° Horizontal Drainable Blade

The ECD-545 offers exceptional protection against wind-driven rain under the most severe conditions and is ideally suited for high wind areas or applications that are sensitive to wind-driven rain penetration. The ECD-545 incorporates horizontal blades and is available in a wide array of anodized and painted finishes including custom color matching.

# **Standard Construction**

**Material:** Mill finish 6063-T6 extruded aluminum **Frame:** 5" deep  $\times$  0.081" thick (127  $\times$  2) channel

**Blades:**  $45^{\circ} \times 063^{\circ}$  (1.6) thick horizontal chevron style **Screen:**  $1/2^{\circ} \times 0.063^{\circ}$  (12.7 × 1.6) expanded and

flattened aluminum

**Minimum Size:**  $4.5" \times 5" (114 \times 127)$ 

**Maximum Size:** 

Single section:  $60" \times 120" (1524 \times 3048)$ 

 $120" \times 60" (3048 \times 1524)$ 

Multiple section: Unlimited

Shipping Weight (approximate): 6.8 lbs/ft² (33kg/m²)

# **Options**

■ Factory finish:

■ High Performance Fluoropolymer
 ■ Prime Coat

Baked Enamel
 Clear Anodize
 Integral Color Anodize

■ Frame Options:

1-1/2" (38) flange frame
 Custom-size flange

Stucco flange
 Glazing frame

■ Installation Hardware

Clip angles
 Continuous angles

■ Alternate bird or insect screens

■ Insulated or non-insulated blank-off panels

■ Hidden vertical mullion

■ Filter racks

Hinged frame

■ Subframe

■ Head and/or sill flashing

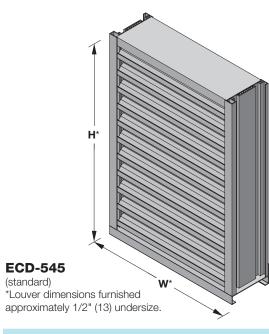
Burglar bars

**■** Frame closure

■ Net OD (actual size)







# **Ratings**

**Free Area:**  $[48" \times 48" (1219 \times 1219) \text{ unit}]: 7.4 \text{ ft}^2 (0.69\text{m}^2)$ 

46.3%

Performance @ Beginning Point of Water Penetration

**Free Area Velocity:** Above 1,250 fpm (6.35 m/s) **Air Volume Delivered:** Above 9,250 cfm (4.37 m³/s)

Pressure Loss: 0.24 in.wg. (60 Pa)

**Velocity @ 0.15 in.wg. Pressure Loss:** 980 fpm (4.98 m/s)

AMCA 540 (impact resistance, basic protection level D) listed

Design Load: 30 psf



#### **Certified Ratings:**

All-Lite certifies that the model ECD-545 shown herein is licensed to bear the AMCA seal. The ratings shown are based on test and procedures performed in accordance with AMCA Publication 511 and comply with the requirements of the AMCA Certified Ratings Program. The AMCA Certified Ratings seal applies to air performance, water penetration and wind-driven rain ratings.



#### 540 IMPACT RESISTANT LOUVER

Basic Protection Level D
See www. AMCA.org for all certified or listed products

All-Lite certifies that the model ECD-545 shown herein is approved to bear the AMCA Listing Label. The rating shown are based on tests and procedures performed in accordance with AMCA publications and comply with the requirements of the AMCA Listing Label Program. The AMCA Listing Label applies to Wind Borne Debris Impact Resistance.

**NOTE:** Dimensions in parentheses () are millimeters. Information is subject to change without notice or obligation.

# **PERFORMANCE**

ECD-545

5" deep • 45° Horizontal Drainable Blade

### Free Area (ft²)

84

90

96

102

108

114

120

0.7

0.8

0.8

0.9

0.9

1.0

1.0

2.9

3.1

3.3

3.5

3.8

4.0

4.2

4.6

5.0

5.3

5.7

6.0

6.3

6.4

6.8

7.3

7.8

8.3

8.7

9.2

8.1

8.7

9.3

9.9

10.5

11.1

11.7

9.8

10.6

11.3

12.0

12.8

13.5

14.2

11.6

12.4

13.3

14.1

15.0

15.9

16.7

13.3

14.3

15.3

16.3

17.3

18.3

19.2

15.0

16.1

17.3

18.4

19.5

20.6

21.8

\M/idth /	(Inches)
vvidtii	

	4.5	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
7	0.02	0.1	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4	0.4	0.4	0.5	0.5	0.6	0.6	0.6	0.7	0.7	0.7
12	0.1	0.3	0.5	0.7	0.8	1.0	1.2	1.4	1.6	1.8	1.9	2.1	2.3	2.5	2.7	2.8	3.0	3.2	3.4	3.6
18	0.1	0.5	0.8	1.1	1.5	1.8	2.1	2.4	2.7	3.0	3.3	3.6	3.9	4.2	4.6	4.9	5.2	5.5	5.8	6.1
24	0.2	0.7	1.2	1.6	2.1	2.5	2.9	3.4	3.8	4.3	4.7	5.1	5.6	6.0	6.5	6.9	7.3	7.8	8.2	8.7
30	0.2	0.9	1.5	2.1	2.7	3.2	3.8	4.4	4.9	5.5	6.1	6.6	7.2	7.8	8.4	8.9	9.5	10.1	10.6	11.2
36	0.3	1.2	1.9	2.6	3.3	4.0	4.7	5.4	6.1	6.8	7.5	8.2	8.9	9.6	10.3	10.9	11.6	12.3	13.0	13.7
42	0.3	1.4	2.2	3.0	3.9	4.7	5.5	6.4	7.2	8.0	8.8	9.7	10.5	11.3	12.1	13.0	13.8	14.6	15.5	16.3
48	0.4	1.6	2.6	3.5	4.5	5.4	6.4	7.4	8.3	9.3	10.2	11.2	12.1	13.1	14.0	15.0	16.0	16.9	17.9	18.8
54	0.5	1.8	2.9	4.0	5.1	6.2	7.2	8.3	9.4	10.5	11.6	12.7	13.8	14.9	15.9	17.0	18.1	19.2	20.3	21.4
60	0.5	2.0	3.2	4.5	5.7	6.9	8.1	9.3	10.5	11.8	13.0	14.2	15.4	16.6	17.8	19.1	20.3	21.5	22.7	23.9
66	0.6	2.2	3.6	4.9	6.3	7.6	9.0	10.3	11.7	13.0										
72	0.6	2.5	3.9	5.4	6.9	8.4	9.8	11.3	12.8	14.3										
78	0.7	2.7	4.3	5.9	7.5	9.1	10.7	12.3	13.9	15.5										
			i e	i e	i e		1	i e			1									

16.8

18.0

19.3

20.5

21.8

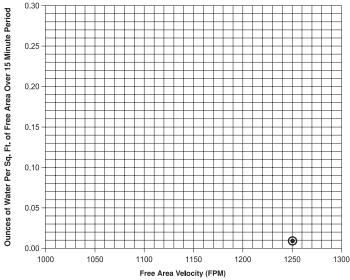
23.0

24.3

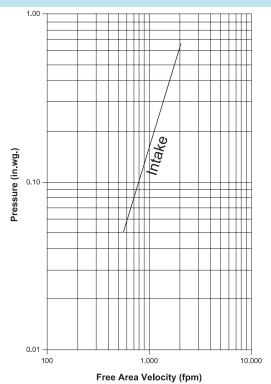
# **Water Penetration**

AMCA defines the beginning point of water penetration as the free area velocity at the intersection of a simple linear regression of test data and the line of 0.01 ounces of water per square foot of free area measured through a 48" x 48" louver during a 15 minute period. The AMCA water penetration test provides a method for comparing louver models and designs as to their efficiency in resisting the penetration of rainfall under specific lab conditions. We recommend that intake louvers are selected with a reasonable margin of safety below the beginning point of water penetration in order to avoid unwanted penetration during severe storm conditions.

#### Beginning Point of Water Penetration = Above 1,250 fpm



## **Pressure Loss**



Louver Test Size = 48" x 48" (1219 x 1219)
Pressure loss tested in accordance with Figure 5.5 of AMCA
Standard 500-L. Data corrected to standard air density.

**ALL-LITE** 

ECD-545 2 of 4, June, 2025

### Wind Driven Rain Performance - AMCA 500L Wind-Driven Rain Test

Wind Velocity	Rainfall	Airflow cfm (m³/s)	Core Velocity <sup>1</sup> fpm (m/s)	Free Area Velocity <sup>2</sup> fpm (m/s)	Effectiveness Ratio	Wind-Driven Rain Penetration Class
29 mph	3 in/hr	9,276 (4.4)	862 (4.4)	1,727 (8.8)	99.4%	А
50 mph	8 in/hr	10,502 (5.0)	975 (5.0)	1,956 (9.9)	95.3%	В

#### NOTE:

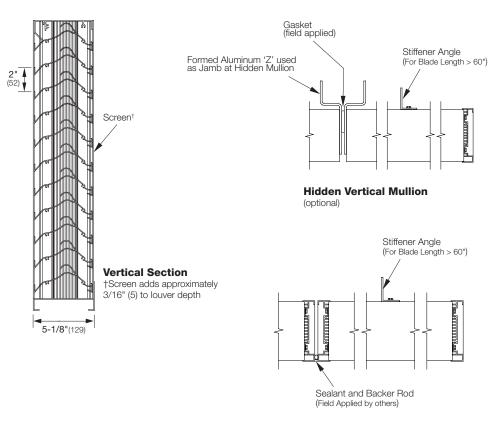
1. Core area is the open area of the louver face (face area less louver frame). Core velocity is the airflow divided by core area. Test louver core area is 10.77 ft² (1 m²)

2. Free area velocity is the airflow divided by free area. Test louver free area is 5.4 ft² (0.5 m²).

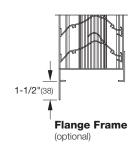
#### Wind Driven Rain

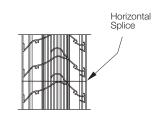
Class	Effectiveness
Α	99% and above
В	95% to 98.9%
С	80% to 94.9%
D	below 80%

# **Attributes**



Visible Vertical Mullion (standard)

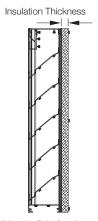




Horizontal Mullion (standard)

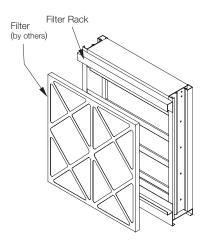
5" deep • 45° Horizontal Drainable Blade

# **Supplemental Options**

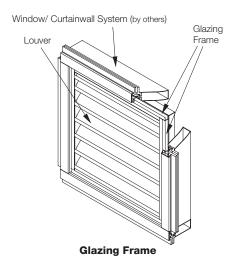


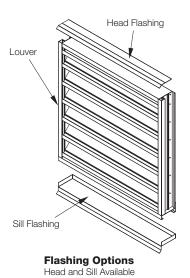
**Blank-Off Options** 

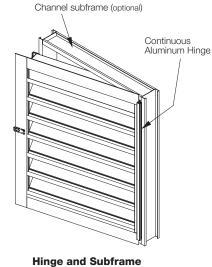
Non-Insulated and Gasketed 1" Insulated (4.25 R-value) 2" Insulated (8.75 R-value)

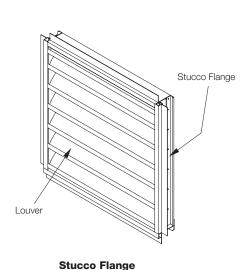












Right or Left Side Option Available

**ALL-LITE ECD-545** 4 of 4, June, 2025