

## EME545D WIND-DRIVEN RAIN RESISTANT STATIONARY LOUVER EXTRUDED ALUMINUM

MIAMI-DADE COUNTY, FLORIDA NOTICE OF ACCEPTANCE NUMBER 11-1102-06 (CERTIFICATION PENDING)

### STANDARD CONSTRUCTION

#### FRAME

Double frame design produced from 6063T6 extruded aluminum with .081" (2.1) nominal wall thickness. Exterior frame depth is 2" (51) and interior frame depth is 3" (76). Overall combined frame depth is 5" (178) nominal.

#### BLADES

Sight-proof design produced from 6063T6 extruded aluminum with .081" (2.1) nominal wall thickness. Exterior blades are 2" (51) deep, positioned at 45° angle interior blades are 3" (76) deep.

#### SCREEN

5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame. Screen adds approximately 1/2" (13) to louver depth.

#### EXTENDED SILL

.081" (2.1) formed aluminum with end dams. Not provided with front flange frame.

#### FINISH

Mill.

#### MINIMUM SIZE

12"w x 12"h (305 x 305).

#### APPROXIMATE SHIPPING WEIGHT

7 lbs. per sq. ft. (39 kg/m<sup>2</sup>)

#### MAXIMUM FACTORY ASSEMBLY SIZE

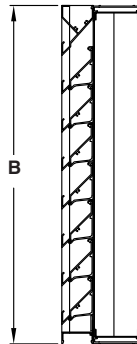
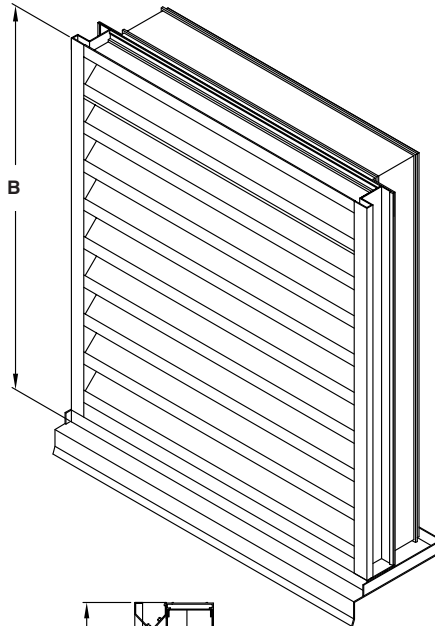
Standard EME545D - shall not exceed 120"w x 90"h (3048 x 2286) or 90"w x 96"h (2286 x 2439). Louvers larger than the maximum factory assembly size will require field assembly of smaller sections. Field assembly = unlimited width x 96"h (2439). Sections may not be stacked in height.

#### SUPPORTS

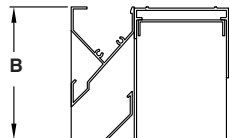
Louvers may be provided with rear mounted blade supports that increase overall louver depth depending on louver size, assembly configuration or windload.

Consult Ruskin for additional information.

Dimensions in inches, parenthesis ( ) indicate millimeters.



FRAME CONSTRUCTION



STANDARD

### FEATURES

- Two-piece blade design provides protection from wind driven rain penetration, reducing damage and additional operating expenses.
- Complies with the 2007 Florida Building Code (FBC) and is approved for use in the High Velocity Hurricane Zone. Also Miami-Dade approved for use in open structures with provisions to manage weather infiltration (wet rooms).
- Tested to the following FBC/Miami-Dade County test protocols:
  - TAS-201 Large Missile Impact Test
  - TAS-202 Uniform Static Pressure
  - TAS-203 Cyclic Pressure Test
- Maximum windload ±130 PSF (6.2 kPa). Tested in the AMCA 500-L Wind-Driven Rain Penetration Test.
- Published performance ratings based on testing in accordance with AMCA Publication 511.
- 33% Free Area.
- Aluminum construction for low maintenance and high resistance to corrosion.

### VARIATIONS

- Insulated or sheet blank-off panels.
- Front or rear security bars.
- Filter racks.
- Installation angles.
- A variety of bird and insect screens.
- Selection of finishes prime coat, 50% PVDF (modified fluoropolymer), epoxy, Pearledize 50 & 70, 70% PVDF clear and color anodize. (Some variation in anodize color consistency is possible.)

Consult Ruskin for other special requirements.

TAG	QTY.	SIZE		VARIATIONS
		A*-WIDE	B*-HIGH	
PROJECT ARCH./ENGR. REPRESENTATIVE		LOCATION CONTRACTOR DATE		

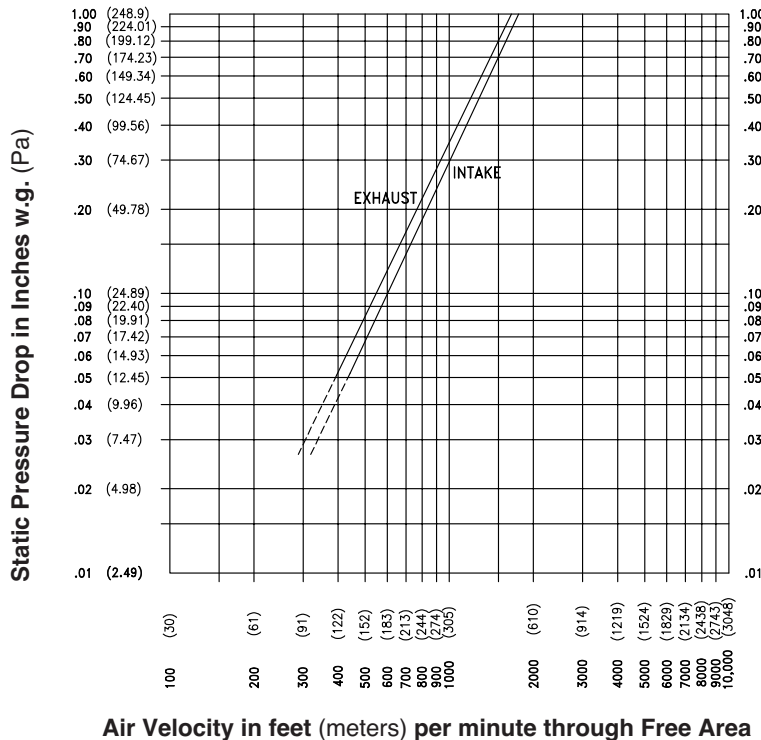
# FREE AREA GUIDE

Free Area Guide shows free area in ft<sup>2</sup> and m<sup>2</sup> for various sizes of EME545D.  
Width – Inches and Meters

	12	18	24	30	36	42	48	54	60	66	72	78	84	90	96	102	108	114	120
	0.30	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52	1.68	1.83	1.98	2.13	2.29	2.44	2.59	2.74	2.90	3.05
<b>12</b>	<b>0.09</b>	<b>0.16</b>	<b>0.24</b>	<b>0.25</b>	<b>0.33</b>	<b>0.41</b>	<b>0.48</b>	<b>0.49</b>	<b>0.56</b>	<b>0.65</b>	<b>0.72</b>	<b>0.73</b>	<b>0.81</b>	<b>0.89</b>	<b>0.97</b>	<b>0.98</b>	<b>1.04</b>	<b>1.14</b>	<b>1.21</b>
0.30	0.01	0.02	0.02	0.02	0.03	0.04	0.04	0.05	0.05	0.06	0.07	0.07	0.08	0.08	0.09	0.09	0.10	0.11	0.11
<b>18</b>	<b>0.24</b>	<b>0.45</b>	<b>0.66</b>	<b>0.69</b>	<b>0.90</b>	<b>1.11</b>	<b>1.33</b>	<b>1.35</b>	<b>1.54</b>	<b>1.79</b>	<b>1.99</b>	<b>2.01</b>	<b>2.22</b>	<b>2.44</b>	<b>2.65</b>	<b>2.69</b>	<b>2.87</b>	<b>3.14</b>	<b>3.31</b>
0.46	0.02	0.04	0.06	0.06	0.08	0.10	0.12	0.13	0.14	0.17	0.18	0.19	0.21	0.23	0.25	0.25	0.27	0.29	0.31
<b>24</b>	<b>0.39</b>	<b>0.74</b>	<b>1.08</b>	<b>1.12</b>	<b>1.47</b>	<b>1.82</b>	<b>2.17</b>	<b>2.21</b>	<b>2.52</b>	<b>2.93</b>	<b>3.25</b>	<b>3.29</b>	<b>3.64</b>	<b>3.99</b>	<b>4.33</b>	<b>4.40</b>	<b>4.69</b>	<b>5.13</b>	<b>5.42</b>
0.61	0.04	0.07	0.10	0.10	0.14	0.17	0.20	0.21	0.23	0.27	0.30	0.31	0.34	0.37	0.40	0.41	0.44	0.48	0.50
<b>30</b>	<b>0.49</b>	<b>0.93</b>	<b>1.36</b>	<b>1.41</b>	<b>1.85</b>	<b>2.29</b>	<b>2.73</b>	<b>2.78</b>	<b>3.18</b>	<b>3.69</b>	<b>4.09</b>	<b>4.14</b>	<b>4.58</b>	<b>5.02</b>	<b>5.46</b>	<b>5.55</b>	<b>5.90</b>	<b>6.46</b>	<b>6.82</b>
0.76	0.05	0.09	0.13	0.13	0.17	0.21	0.25	0.26	0.30	0.34	0.38	0.39	0.43	0.47	0.51	0.52	0.55	0.60	0.63
<b>36</b>	<b>0.64</b>	<b>1.21</b>	<b>1.79</b>	<b>1.85</b>	<b>2.42</b>	<b>3.00</b>	<b>3.57</b>	<b>3.63</b>	<b>4.16</b>	<b>4.83</b>	<b>5.36</b>	<b>5.42</b>	<b>5.99</b>	<b>6.57</b>	<b>7.14</b>	<b>7.26</b>	<b>7.73</b>	<b>8.46</b>	<b>8.93</b>
0.91	0.06	0.11	0.17	0.17	0.23	0.28	0.33	0.34	0.39	0.45	0.50	0.50	0.56	0.61	0.66	0.67	0.72	0.79	0.83
<b>42</b>	<b>0.79</b>	<b>1.50</b>	<b>2.21</b>	<b>2.28</b>	<b>2.99</b>	<b>3.70</b>	<b>4.41</b>	<b>4.49</b>	<b>5.14</b>	<b>5.98</b>	<b>6.62</b>	<b>6.70</b>	<b>7.41</b>	<b>8.12</b>	<b>8.83</b>	<b>8.97</b>	<b>9.55</b>	<b>10.45</b>	<b>11.03</b>
1.07	0.07	0.14	0.21	0.21	0.28	0.34	0.41	0.42	0.48	0.56	0.62	0.62	0.69	0.75	0.82	0.83	0.89	0.97	1.03
<b>48</b>	<b>0.94</b>	<b>1.78</b>	<b>2.63</b>	<b>2.72</b>	<b>3.57</b>	<b>4.41</b>	<b>5.26</b>	<b>5.35</b>	<b>6.12</b>	<b>7.12</b>	<b>7.88</b>	<b>7.98</b>	<b>8.82</b>	<b>9.67</b>	<b>10.51</b>	<b>10.68</b>	<b>11.37</b>	<b>12.45</b>	<b>13.14</b>
1.22	0.09	0.17	0.24	0.25	0.33	0.41	0.49	0.50	0.57	0.66	0.73	0.74	0.82	0.90	0.98	0.99	1.06	1.16	1.22
<b>54</b>	<b>1.04</b>	<b>1.97</b>	<b>2.91</b>	<b>3.01</b>	<b>3.95</b>	<b>4.88</b>	<b>5.82</b>	<b>5.92</b>	<b>6.77</b>	<b>7.88</b>	<b>8.73</b>	<b>8.83</b>	<b>9.76</b>	<b>10.70</b>	<b>11.63</b>	<b>11.82</b>	<b>12.59</b>	<b>13.78</b>	<b>14.54</b>
1.37	0.10	0.18	0.27	0.28	0.37	0.45	0.54	0.55	0.63	0.73	0.81	0.82	0.91	0.99	1.08	1.10	1.17	1.28	1.35
<b>60</b>	<b>1.19</b>	<b>2.26</b>	<b>3.33</b>	<b>3.45</b>	<b>4.52</b>	<b>5.59</b>	<b>6.66</b>	<b>6.78</b>	<b>7.75</b>	<b>9.02</b>	<b>9.99</b>	<b>10.11</b>	<b>11.18</b>	<b>12.25</b>	<b>13.32</b>	<b>13.53</b>	<b>14.41</b>	<b>15.77</b>	<b>16.65</b>
1.52	0.11	0.21	0.31	0.32	0.42	0.52	0.62	0.63	0.72	0.84	0.93	0.94	1.04	1.14	1.24	1.26	1.34	1.47	1.55
<b>66</b>	<b>1.34</b>	<b>2.54</b>	<b>3.75</b>	<b>3.88</b>	<b>5.09</b>	<b>6.30</b>	<b>7.50</b>	<b>7.63</b>	<b>8.73</b>	<b>10.16</b>	<b>11.25</b>	<b>11.38</b>	<b>12.59</b>	<b>13.80</b>	<b>15.00</b>	<b>15.25</b>	<b>16.23</b>	<b>17.77</b>	<b>18.75</b>
1.68	0.12	0.24	0.35	0.36	0.47	0.59	0.70	0.71	0.81	0.94	1.05	1.06	1.17	1.28	1.40	1.42	1.51	1.65	1.74
<b>72</b>	<b>1.49</b>	<b>2.83</b>	<b>4.17</b>	<b>4.32</b>	<b>5.66</b>	<b>7.00</b>	<b>8.34</b>	<b>8.49</b>	<b>9.71</b>	<b>11.30</b>	<b>12.52</b>	<b>12.66</b>	<b>14.00</b>	<b>15.35</b>	<b>16.69</b>	<b>16.96</b>	<b>18.05</b>	<b>19.76</b>	<b>20.86</b>
1.83	0.14	0.26	0.39	0.40	0.53	0.65	0.78	0.79	0.90	1.05	1.16	1.18	1.30	1.43	1.55	1.58	1.68	1.84	1.94
<b>78</b>	<b>1.59</b>	<b>3.02</b>	<b>4.45</b>	<b>4.61</b>	<b>6.04</b>	<b>7.47</b>	<b>8.90</b>	<b>9.06</b>	<b>10.36</b>	<b>12.06</b>	<b>13.36</b>	<b>13.51</b>	<b>14.95</b>	<b>16.38</b>	<b>17.81</b>	<b>18.10</b>	<b>19.27</b>	<b>21.09</b>	<b>22.26</b>
1.98	0.15	0.28	0.41	0.43	0.56	0.70	0.83	0.84	0.96	1.12	1.24	1.26	1.39	1.52	1.66	1.68	1.79	1.96	2.07
<b>84</b>	<b>1.74</b>	<b>3.31</b>	<b>4.87</b>	<b>5.05</b>	<b>6.61</b>	<b>8.18</b>	<b>9.75</b>	<b>9.92</b>	<b>11.34</b>	<b>13.20</b>	<b>14.62</b>	<b>14.79</b>	<b>16.36</b>	<b>17.93</b>	<b>19.49</b>	<b>19.81</b>	<b>21.09</b>	<b>23.09</b>	<b>24.37</b>
2.13	0.16	0.31	0.45	0.47	0.61	0.76	0.91	0.92	1.05	1.23	1.36	1.38	1.52	1.67	1.81	1.84	1.96	2.15	2.27
<b>90</b>	<b>1.89</b>	<b>3.59</b>	<b>5.29</b>	<b>5.48</b>	<b>7.18</b>	<b>8.89</b>	<b>10.59</b>	<b>10.78</b>	<b>12.32</b>	<b>14.34</b>	<b>15.88</b>	<b>16.07</b>	<b>17.77</b>	<b>19.48</b>	<b>21.18</b>	<b>21.52</b>	<b>22.91</b>	<b>25.08</b>	<b>26.47</b>
2.29	0.18	0.33	0.49	0.51	0.67	0.83	0.98	1.00	1.15	1.33	1.48	1.49	1.65	1.81	1.97	2.00	2.13	2.33	2.46
<b>96</b>	<b>2.04</b>	<b>3.88</b>	<b>5.72</b>	<b>5.92</b>	<b>7.76</b>	<b>9.59</b>	<b>11.43</b>	<b>11.63</b>	<b>13.30</b>	<b>15.48</b>	<b>17.15</b>	<b>17.35</b>	<b>19.19</b>	<b>21.03</b>	<b>22.86</b>	<b>23.23</b>	<b>24.73</b>	<b>27.08</b>	<b>28.58</b>
2.44	0.19	0.36	0.53	0.55	0.72	0.89	1.06	1.08	1.24	1.44	1.59	1.61	1.78	1.96	2.13	2.16	2.30	2.52	2.66

## PRESSURE DROP

Pressure Drop testing performed on 48" x 48" (1219 x 1219) unit.



Ratings do not include the effect of a bird screen.

## SUGGESTED SPECIFICATION

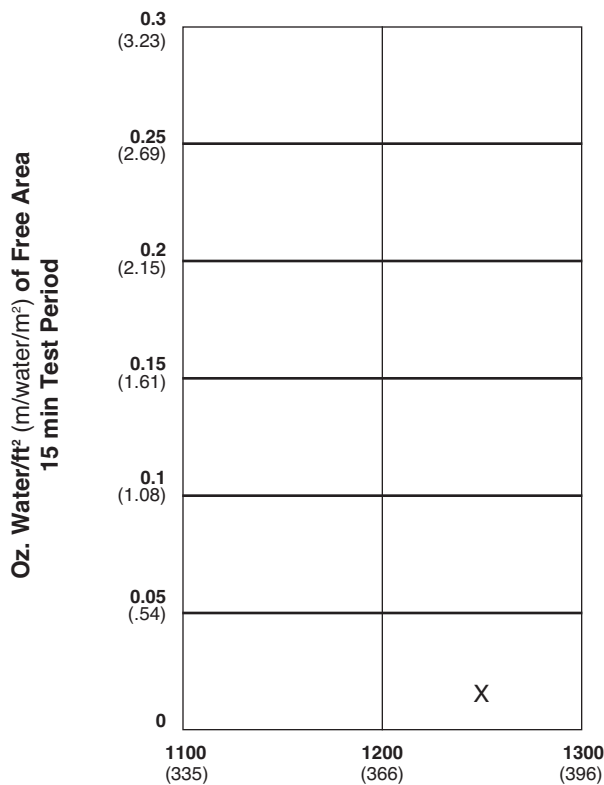
Furnish and install louvers as hereinafter specified where shown on plans or as described in schedules. Louvers shall possess stationary vertical blades designed to prevent the penetration of wind-driven rain. Louver blades shall be contained within a 5" (125) frame. Extended sill shall be provided to capture and drain water to exterior of building. Louver components (heads, jams, sill and blades) 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 to provide overall sizes required. Louver design shall limit single span between visible mullions to 5' (1.5) and shall withstand a wind load of 130 lbs. per sq. ft. (6.2kPa) (equivalent of a 90 mph wind [145 kph] - specifier may substitute any loading required).

Louvers shall be Ruskin Model EME545D extruded 6063T6 aluminum alloy construction as follows:

Frame:	.081" (2.1) wall thickness, caulking surfaces provided.
Blades:	.081" (2.1) wall thickness, exterior 2" (51) deep blades positioned at 45°. Interior blades are 3" (76).
Extended Sill:	.081" (2.1) wall thickness with upturned side panels to prevent water leakage.
Screen:	5/8" x .040" (16 x 1) expanded, flattened aluminum bird screen in removable frame.
Finish:	Select finish specification from Ruskin Finishes Brochure.

## WATER PENETRATION GRAPH

Test size 48" x 48" (1219 x 1219)  
Beginning point of water penetration at .01 oz./sq. ft. is above 1250 fpm (381 m/min.)



Ruskin Company certifies that the louver shown herein is licensed to bear the AMCA Seal. The ratings shown are based on tests 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 ratings, water penetration ratings and wind driven rain ratings only.

## WIND-DRIVEN RAIN PERFORMANCE – AMCA 500-L WIND-DRIVEN RAIN TEST

Test size is 1.2m x 1.1m (46 1/2" x 43 7/8") core area, 1.22m x 1.22m (48" x 48") nominal. Free Area of test louver is 5.96 ft² (.55m²).

Wind Velocity mph (kph)	Rain Fall Rate In./hr. (mm/hr.)	Core Velocity <sub>1</sub> fpm (m/s)	Airflow cfm (m³/min)	Free Area Velocity <sub>2</sub> fpm (m/sec.)	Effectiveness Ratio	Class <sub>3</sub>
29 (46.4)	3 (76)	976 (3.5)	10,511 (298)	1,764 (8.7)	99.8%	A
50 (80.5)	8 (203)	960 (3.5)	10,331 (293)	1,734 (8.7)	99.9%	A

### NOTES

- Core area is the open area of the louver face (face area less louver frames). Core Velocity is the airflow velocity through the Core Area of the louver (1m x 1m).
- Free Area of test size is calculated per AMCA standard 500-L.

- Wind Driven Rain Penetration Classes:

Class	Effectiveness	Class	Effectiveness
A	1 to .99	B	0.989 to 0.95
C	0.949 to 0.80	D	Below 0.8

(The higher the coefficient, the less resistance to airflow.)

**RUSKIN**<sup>®</sup>

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