

**University of Illinois Department of
Agricultural Engineering
BEES Lab**

Project Number: 01243

Test Date: August 23, 2001

Fan

Make: American Coolair

Model #: MNCFBE48L

Manufacturer: American Coolair

Blade Size: 49.2"

Orifice Dia.: 49.5"

Blade

Number: 6

Shape: propeller

Material: painted steel

Pitch: -

Clearance: 0.2"

Shutter w/ bell mouth inlet

Material: plastic

of Doors: 16

of Columns: 3

Door Length: 17.1"

Location: intake

Other Attachments:

Belt tensioner

Motor

Make: AO Smith

Model #: 327P775

H.P.: 1

Amps: 11.0/5.5

Volts: 115/208-230

RPM: 1725

S.F.: 1.3

Drive

Drive Pulley Dia. 3.3"
AK34

Axle Pulley Dia.: 15.5" o.d.

Housing

Material: galvanized steel

Intake Area: 56" x 57"

Discharge Area: 54.5" x 55"

Depth: 30.3" top
21.3" bottom

Guards

Description: wire

Spacing: 2" x 2"

Location: exhaust

TEST RESULTS

AMERICAN COOLAIR MNCFB48L

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 01243	0.00	380	19,400	22.4
Fan description:	0.05	379	18,000	20.1
49" belt drive, 1 hp AO Smith 327P775	0.10	378	16,400	17.7
motor, galvanized steel slant housing,	0.15	378	14,400	15.2
plastic shutter and guard	0.20	377	10,900	11.2
	0.25	376	7,700	7.8
	0.30	376	4,800	4.7
