

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

Project Number: 99214

Test Date: November 8, 1999

Fan

Make: Chore-Time

Model #: 44646-4822

Manufacturer: Chore-Time

Blade Size: 48"

Orifice Dia.: 48.6"

Blade

Number: 2

Shape: propeller

Material: galvanized steel

Pitch: -

Clearance: 0.3"

Shutter

Material: plastic

of Doors: 15 per column

of Columns: 2

Door Length: 25.9"

Location: intake

Other Attachments:

Motor

Make: Emerson

Model #: K63ZZEDD-4539

H.P.: 1

Amps: 5.2

Volts: 230

RPM: 850

S.F.: 1.0

Drive

Drive Pulley Dia. Direct

Axle Pulley Dia.: drive

Housing

Material: galvanized steel

Intake Area: 54" x 54.3"

Discharge Area: 52" x 52"

Depth: 33.3" top
20.8" bottom

Guards

Description: wire

Spacing: 1" x 2"

Location: exhaust

TEST RESULTS

CHORE-TIME 44646-4822

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 99214	0.00	846	17,900	20.9
Fan description:	0.05	840	16,600	18.4
48" direct drive, 1 hp Emerson K63ZZEDD-4539	0.10	835	15,100	16.0
motor, galv. steel slant housing, plastic	0.15	830	13,600	13.7
shutter and guard	0.20	820	11,800	11.5
	0.25	815	9,600	9.0
	0.30	807	7,100	6.3
