

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

Project Number: 98059

Test Date: February 23, 1998

Fan

Make: Chore-Time

Model #: 40452-1422

Manufacturer: CTB Inc.

Blade Size: 14"

Orifice Dia.: 14.4"

Blade

Number: 4

Shape: propeller

Material: aluminum

Pitch: -

Clearance: 0.2"

Shutter

Material: plastic

of Doors: 4 per column

of Columns: 1

Door Length: 15.4"

Location: intake

Other Attachments:

Discharge cone 22" deep, 14.4" i.d., 22" o.d.

Motor

Make: GE

Model #: 5KCP390G

H.P.: 1/8

Amps: 0.60

Volts: 230

RPM: 1625

S.F.: -

Drive

Drive Pulley Dia.: direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 17.1" x 17.1"

Discharge Area: 14.4" dia.

Depth: 18" top
17" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

TEST RESULTS

CHORE-TIME 40452-1422

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 98059	0.00	1587	2120	14.8
Fan description:	0.05	1580	2030	13.8
14" direct drive, 1/8 hp GE 5KCP390DG	0.10	1570	1910	12.6
motor, fiberglass housing, plastic shutter,	0.15	1558	1780	11.5
guard and discharge cone	0.20	1549	1590	9.9
	0.25	1558	1300	8.4
	0.30	1562	640	4.2