

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 97328

Test Date: November 25, 1997

Fan

Make: Raydot

Model #: 481 DD-SC

Manufacturer: Raydot

Blade Size: 48"

Orifice Dia.: 48.8"

Blade Lau

Number: 3

Shape: propeller

Material: stainless steel

Pitch: -

Clearance: 0.4"

Shutter

Material: Plastic

of Doors: 17 per column

of Columns: 2

Door Length: 17.5"

Location: intake

Other Attachments:

Discharge Cone 48.8" i.d., 65" o.d., 37" deep

Motor

Make: Magnetek

Model #: 8-184665-01

H.P.: 1

Amps: 5.1

Volts: 230

RPM: 850

S.F.: 1.0

Drive

Drive Pulley Dia.: direct

Axle Pulley Dia.: drive

Housing

Material: fiberglass

Intake Area: 54.8" x 55"

Discharge Area: 48.8" dia.

Depth: 26.5" top
22" bottom

Guards

Description: wire

Spacing: 1" x 1 1/2" concentric

Location: intake / exhaust

TEST RESULTS

RAYDOT 481 DD-SC

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97328	0.00	814	23000	22.7
Fan description:	0.05	799	21300	19.3
48" direct drive, 1 hp Magnetek 8-184665-01	0.10	781	19800	16.8
motor, fiberglass housing, plastic shutter,	0.15	756	17700	14.1
guard and discharge cone	0.20	715	14800	10.9
