

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

Project Number: 97329

Test Date: November 25, 1997

Fan

Make: Raydot

Model #: 481 DD-SX

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:

orifice extension 9" 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: 2" concentric

Location: exhaust

TEST RESULTS

RAYDOT 481 DD-SX

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97329	0.00	785	20200	17.8
Fan description:	0.05	766	18700	15.4
48" direct drive, 1 hp Magnetek 8-184665-01	0.10	746	16900	13.2
motor, fiberglass housing w/orifice extension,	0.15	715	14600	10.8
plastic shutter and guard	0.20	681	11500	8.2
