

Bioenvironmental and Structural Systems Lab

Fan Description Form

Project Number: 93133 Series/Test: /

Test Date: March 29, 1993 File Name: _____

Fan

Make: Loyal

Model #: BW48-6

Serial #: -

Manufacturer: Loyal

Blade Size: 48"

Orifice Dia.: 48.875"

Blade

Number: 3

Shape: propeller

Material: galv. steel

Pitch: 34 degrees

Clearance: .4"

Hub Diameter: 4"

Shutter

Material: aluminum

Number Doors: 12

Number Rows: 2

Door Length: 23.875"

Location: exhaust

Other Attachments

Motor

Make: Magnetech

Model #: 8-181657-01

Serial #: -

H.P.: 1

Amps: 4.3 / 8.6

Volts: 115 / 230

RPM: 1725

S.F.: 1.4

Drive Pulley Dia.: 3"

Axle Pulley Dia.: 10.25"

Center Spacing: 12"

Housing

Material: galv. steel

Intake Area: 52.5" x 52.5"

Discharge Area: 48" x 48"

Depth: 26.5"

Guards

Description: wire mesh

Spacing: 1" x 2"

Location: intake

TEST RESULTS

LOYAL BW48-6

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 93133	0.00	520	20600	21.1
Fan description:	0.05	520	19300	19.2
48" belt drive, 1 hp Magnetek 8-181657-01	0.10	520	17500	16.8
motor, galvanized steel housing,	0.15	517	15800	14.7
aluminum shutter and guard	0.20	516	13400	12.1
	0.25	517	10100	9.3
