

University of Illinois Department of Agricultural Engineering
Bioenvironmental and Structural Systems Lab
Fan Description Form

Project Number: 97181

Test Date: June 26, 1997

Fan
Make: Acme

Motor
Make: GE

Model #: BDR48JL-A

Model #: 5KCR49SN0020S

Manufacturer: Acme

H.P.: 1

Blade Size: 48"

Amps: 9.6/4.8

Orifice Dia.: 48.5"

Volts: 115/208-230

Blade
Number: 4

RPM: 1725

Shape: propeller

S.F.: 1.00

Material: galv. Steel

Drive Pulley Dia.: AK30

Pitch: -

Axle Pulley Dia.: AL114

Clearance: 0.3"

Housing
Material: galvanized steel

Shutter
Material: Aluminum

Intake Area: 52.5"x54"

Number Doors: 13 per row

Discharge Area:

Number Columns: 2

Depth: 34" top
20.8" bottom

Door Length: 25.8"

Guards
Description: welded wire

Location: intake

Spacing: 1" x 2"

Location: exhaust

Other Attachments:

TEST RESULTS

ACME BDR48JL-A

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97181	0.00	474	20400	21.7
Fan description:	0.05	474	19300	19.9
48" Belt drive 1 hp GE 5KCR49SN0020S	0.10	473	18100	18.1
motor, galvanized steel housing, aluminum shutter	0.15	472	16800	16.4
and guard	0.20	472	15300	14.5
	0.25	470	14000	12.9
	0.30	468	10800	9.4
