

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

Project Number: 97190

Test Date: June 26, 1997

Fan
Make: Acme

Motor
Make: GE

Model #: BDR48JL-C

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.: AK27

Pitch: none

Axle Pulley Dia.: AL114

Clearance: 0.3"

Housing
Material: galv. steel

Shutter
Material: Aluminum

Intake Area: 52.5"x54"

Number Doors: 13 per row

Discharge Area: 51.5"x51.3"

Number Columns: 2

Depth: 34"top/20.8"bottom

Door Length: 25.8"

Guards
Description: wire

Location: intake

Spacing: none

Location: Exhaust

Other Attachments: Discharge cone 59.5" o.d., 22.5" deep

TEST RESULTS

ACME BDR48JL-C

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 97190	0.00	421	19800	31.1
Fan description:	0.05	420	18400	26.9
48" Belt drive 1 hp GE 5KCR49SN0020S	0.10	420	17000	23.5
motor, galvanized steel slant housing,	0.15	420	15300	20.4
aluminum shutter, guard and discharge cone	0.20	419	13000	16.7
	0.25	418	8900	11.1
	0.30	417	6000	6.9
