

University of Illinois Department of
Agricultural Engineering
BESS Lab

Project Number: 01399

Test Date: November 20, 2001

Fan

Make: Better Air

Model #: LPF2400

Manufacturer: Better Air

Blade Size: 24.3"

Orifice Dia.: 24.8"

Blade

Number: 3

Shape: propeller

Material: plastic

Pitch: -

Clearance: 0.3"

Shutter

Material: plastic

of Doors: 8 per column

of Columns: 2

Door Length: 12.5"

Location: intake

Other Attachments:

Motor

Make: FHP

Model #: M099807

H.P.: 1/2

Amps: 5.0/2.5

Volts: 115/230

RPM: 1630

S.F.: 1.0

Drive

Drive Pulley Dia.: Direct

Axle Pulley Dia.: drive

Housing

Material: plastic

Intake Area: 24.7" x 24.7"

Discharge Area: 24.7" dia.

Depth: 25.5" top
22" bottom

Guards

Description: wire

Spacing: 2" concentric

Location: exhaust

University of Illinois Department of Agricultural Engineering
 Bioenvironmental and Structural Systems Lab
 Final Report

Project Number: 01399
 Test Date: November 20, 2001

Fan:		Motor:			
Make-	Better Air	Make-	FHP	hp-	1/2
Model-	LPF2400	Model-	M099807	Amps-	5.0/2.5
Size-	24"	RPM-	1630	Volts-	115/230

Attachments: plastic housing, guard and plastic shutter

Notes:

Test Conditions:

T(wb):	54	Barometric pressure, recorded	29.51
T(db):	77	Barometric Pressure, corrected	29.38

# Nozzle	Size (inch)	Pressure Drop	Static Pressure	Airflow (cfm)	rpm	Volts	Amps	Watts	cfm/Watt
3	8	2.31	0.00	6393	1616	229.7	2.48	552	11.6
3	8	2.13	0.05	6139	1612	229.7	2.50	565	10.9
3	8	1.95	0.10	5866	1607	229.6	2.53	566	10.4
3	8	1.75	0.15	5564	1605	229.6	2.54	573	9.7
3	8	1.58	0.20	5287	1601	230.1	2.57	576	9.2
3	8	1.38	0.25	4931	1601	229.8	2.57	577	8.5
3	8	1.20	0.30	4596	1601	230.1	2.56	576	8.0

