

Bioenvironmental and Structural Systems Lab
Fan Description Form

Project Number: 94047 Series/Test: / Test Date: March 8, 1994 File Name: **Fan**Make: LoyalModel #: WF48-6BSerial #: -Manufacturer: LoyalBlade Size: 48"Orifice Dia.: 48.8"**Blade**Number: 3Shape: propellerMaterial: galv. steelPitch: 34 deg.Clearance: .4"Hub Diameter: -**Shutter**Material: aluminumNumber Doors: 14 per rowNumber Rows: 2Door Length: 26.9"Location: intake**Other Attachments**Discharge cone 24" deep, 59" o.d.**Motor**Make: MagnetekModel #: 8-181657-01Serial #: -H.P.: 1Amps: 4.3/8.6Volts: 230/115RPM: 1725S.F.: 1.4Drive Pulley Dia.: AK27
2.7" o.d.Axle Pulley Dia.: 10" o.d.
AL104Center Spacing: 12"**Housing**Material: galv. steelIntake Area: 54"x54"Discharge Area: 59" dia.
coneDepth: 19"**Guards**Description: plastic coated
wireSpacing: 1.8" concentricLocation: exhaust

TEST RESULTS

LOYAL WF48-6B

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 94047	0.00	467	19800	28.9
Fan description:	0.05	465	18400	25.5
48" belt drive, 1 hp Magnetek 8-181657-01	0.10	465	16800	22.3
motor, galvanized steel housing, aluminum	0.15	464	14600	18.7
shutter, guard and discharge cone	0.20	463	11100	13.9
	0.25	463	6900	8.7