

Bioenvironmental and Structural Systems Lab
Fan Description FormProject Number: 93129 Series/Test: / Test Date: March 29, 1993 File Name: **Fan**Make: LoyalModel #: WF48-2ASerial #: -Manufacturer: LoyalBlade Size: 48"Orifice Dia.: 48.875"**Blade**Number: 3Shape: propellerMaterial: galv. steelPitch: 34 degreesClearance: .4"Hub Diameter: 4"**Shutter**Material: aluminumNumber Doors: 14Number Rows: 2Door Length: 26.875"Location: intake**Other Attachments**Cone 17" long**Motor**Make: MagnetechModel #: 8-181973-01Serial #: -H.P.: 1 - .29Amps: 4.6 - 3.0Volts: 230RPM: 1725 - 1140S.F.: 1Drive Pulley Dia.: 2.75"Axle Pulley Dia.: 9.25"Center Spacing: 12"**Housing**Material: galv. steelIntake Area: 54" x 54"Discharge Area: 54" dia.Depth: 30" top
15" bottom**Guards**Description: plastic coated
wireSpacing: 1.75" concentricLocation: exhaust

TEST RESULTS

LOYAL WF48-2A

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 93129	0.00	513	21400	25.2
Fan description:	0.05	511	20000	22.2
48" belt drive, 1 hp Magnetek 8-181973-01	0.10	508	18100	19.2
2-speed motor, galvanized steel slant housing,	0.15	505	16100	16.5
aluminum shutter, guard and discharge cone	0.20	501	13700	13.6
	0.25	501	9700	9.6
* 2 speed motor - high speed performance				