

Bioenvironmental and Structural Systems Lab
Fan Description FormProject Number: 93127 Series/Test: / Test Date: March 29, 1993 File Name: **Fan**Make: LoyalModel #: WF48-6Serial #: -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: MagnetekModel #: 8-181657-01Serial #: -H.P.: 1Amps: 4.3 / 8.6Volts: 115/230RPM: 1725S.F.: 1.4Drive Pulley Dia.: 3.0"Axle Pulley Dia.: 9.75"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 WF48-6

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 93127	0.00	540	22500	24.6
Fan description:	0.05	537	21100	21.7
48" belt drive, 1 hp Magnetek 8-181657-01	0.10	536	19600	19.3
motor, galvanized steel slant housing,	0.15	536	17900	17.0
aluminum shutter, guard and discharge cone	0.20	534	16000	14.7
	0.25	534	13200	11.6
