

Bioenvironmental and Structural Systems Lab
Fan Description FormProject Number: 94061 Series/Test: / Test Date: March 9, 1994 File Name: **Fan**Make: LoyalModel #: BW48-6ASerial #: Manufacturer: LoyalBlade Size: 48"Orifice Dia.: 48.8"**Blade**Number: 3Shape: propellerMaterial: galv. steelPitch: 34 deg.Clearance: .3"Hub Diameter: -**Shutter**Material: aluminumNumber Doors: 12 per rowNumber Rows: 2Door Length: 23.8"Location: intake**Other Attachments****Motor**Make: MagnetekModel #: 8-181657-01Serial #: -H.P.: 1Amps: 4.3/8.6Volts: 230/115RPM: 1725S.F.: 1.4Drive Pulley Dia.: 2.7"
AK27Axle Pulley Dia.: 9 " o.d.
AL94Center Spacing: 12"**Housing**Material: galv. steelIntake Area: 48" x 48"Discharge Area: 52" x 52"Depth: 31"**Guards**Description: wire meshSpacing: 1" x 2"Location: exhaust

TEST RESULTS

LOYAL BW48-6A

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 94061	0.00	509	19700	21.5
Fan description:	0.05	509	18600	19.5
48" belt drive, 1 hp Magnetek 8-181657-01	0.10	508	17200	17.7
motor, galvanized steel housing, aluminum	0.15	507	15700	15.9
shutter and guard	0.20	506	13500	13.5
	0.25	505	10100	9.9
	0.30	505	7100	6.9