

Bioenvironmental and Structural Systems Lab
Fan Description FormProject Number: 94056 Series/Test: / Test Date: March 9, 1994 File Name: **Fan**Make: LoyalModel #: WF24-B3Serial #: -Manufacturer: LoyalBlade Size: 24"Orifice Dia.: 24.9"**Blade**Number: 3Shape: propellerMaterial: aluminumPitch: 23 deg.Clearance: .4"Hub Diameter: -**Shutter**Material: aluminumNumber Doors: 8Number Rows: 1Door Length: 29.8"Location: intake**Other Attachments**discharge cone 17" deep, 30" o.d.**Motor**Make: MarathonModel #: YWE48A11T518ASerial #: -H.P.: 1/3Amps: 1.9Volts: 230RPM: 1100S.F.: 1.0Drive Pulley Dia.: directAxle Pulley Dia.: driveCenter Spacing: -**Housing**Material: galv. steelIntake Area: 30" x 30"Discharge Area: 30" dia.
coneDepth: 19"**Guards**Description: plastic coated
wireSpacing: 1.8" concentricLocation: exhaust

TEST RESULTS

LOYAL WF24-B3

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 94056	0.00	1072	6070	14.8
Fan description:	0.05	1063	5710	13.3
24" direct drive, 1/3 hp Marathon YWE48A115T518A	0.10	1051	5300	11.9
motor, galvanized steel housing, aluminum	0.15	1040	4950	10.9
shutter, guard and discharge cone	0.20	1032	4480	9.6
	0.25	1022	3910	8.3
	0.30	1044	2920	6.6
