

**Bioenvironmental and Structural Systems Lab  
Fan Description Form**

Project Number: 95324 Series/Test:     /    

Test Date: November 16, 1995 File Name:                     

**Fan**

Make: Raydot  
 Model #: PMC-2047  
 Serial #: -  
 Manufacturer: Raydot  
 Blade Size: 21" dia.  
 Orifice Dia.: 21.3"

**Blade**

Number: 3  
 Shape: propeller  
 Material: plastic  
 Pitch: 35  
 Clearance: 0.2"  
 Hub Diameter: -

**Shutter**

Material: plastic  
 Number Doors: 8 per row  
 Number Rows: 2  
 Door Length: 12.3"  
 Location: intake

**Other Attachments**

Discharge cone 27" o.d., 20.5" deep

**Motor**

Make: Magnetek  
 Model #: HF2F028N  
 Serial #: -  
 H.P.: 1/4  
 Amps: 1.5  
 Volts: 230

RPM: 1625  
 S.F.: -  
 Drive Pulley Dia.: direct  
 Axle Pulley Dia.: drive  
 Center Spacing: -

**Housing**

Material: plastic  
 Intake Area: 23.8"x23.8"  
 Discharge Area: 21.3"  
 Depth: 18.5" top  
           17" bottom

**Guards**

Description: wire  
 Spacing: 1.3" concentric  
 Location: exhaust

## TEST RESULTS

### RAYDOT PMC-2047

	Static Pressure	Speed	Airflow	Efficiency
	<u>in. water</u>	<u>rpm</u>	<u>cfm</u>	<u>cfm/Watt</u>
Test: 95324	0.00	1601	4780	14.8
Fan description:	0.05	1591	4500	13.6
20" direct drive, 1/4 hp Magnetek HF2F028N	0.10	1582	4260	12.6
motor, plastic housing, plastic shutter guard	0.15	1578	3970	11.6
and discharge cone	0.20	1575	3620	10.5
	0.25	1579	3150	9.3
	0.30	1589	2460	7.5

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