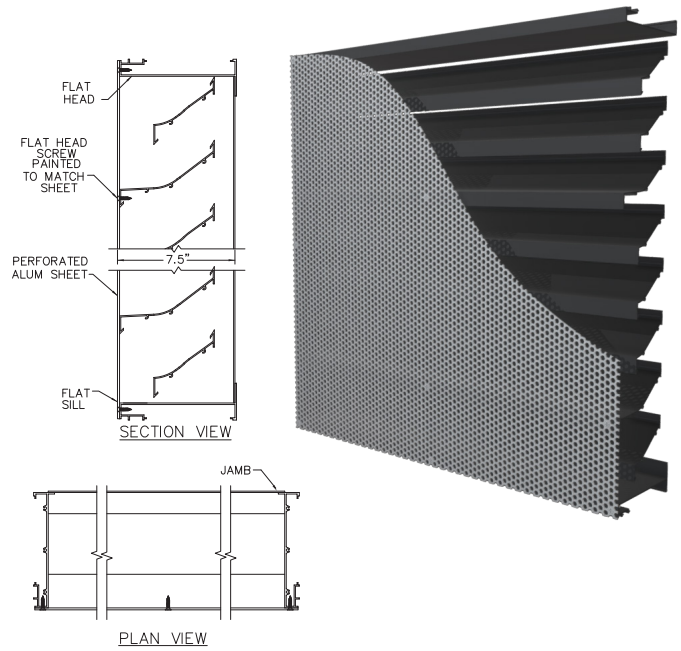


# Model PL-4080 - 3/8" (9.53 mm) Hole Pattern 7.5" (190.5 mm) Perforated High Performance Louver

**Material:**

Material:	Louver 6063-T6 Alloy Perforated Sheet 3003 H14 aluminum
Nominal Thickness (heads, sills, jambs, & mullions):	0.10" (2.54 mm)
Nominal Blade Thickness:	0.068" (1.73 mm) & 0.073" (1.85 mm)
Additional Options (at additional cost):	Rear bird or Insect screen Continuous clip angles for attachment Sheet blank off, Insulated blank off Sill pans, Flange frames Integrated glazing frames



**Test Summary:**

**For a 4 Foot by 4 Foot Unit.**

*Tested with mill finish and no rear bird or insect screen*

- Free area = 7.49 ft<sup>2</sup> (0.69 m<sup>2</sup>)
- Percent free area = 46.8%
- Free area velocity at the point of beginning water penetration (@ 0.01oz. / ft<sup>2</sup> of free area based on a 15 minute interval test) = 959 FPM (4.87 m/s)
- Intake pressure drop at 959 FPM free area velocity = 0.18 in. H<sub>2</sub>O (45.8 Pa)
- To maintain a CLASS C (80%) effectiveness rating\* with:
  - a 29.1 mph wind speed and rainfall rate of 3 in/hr
    - Max. intake core velocity 3.5 m/s (685 FPM)
    - Max. intake free area velocity 6.63 m/s (1,345 FPM)
  - a 50 mph wind speed and rainfall rate of 8 in/hr
    - Max. intake core velocity 5.0 m/s (994 FPM)
    - Max. intake free area velocity 9.91 m/s (1952 FPM)

**Discharge Coefficient**  
Intake Cd = 0.28 (Class 3)

**Wind Driven Rain Performance: Tested with 1m<sup>2</sup> core area, mill finish and no rear bird or insect screen\***

The louver test was based on a 39.370" (1.0 m) x 39.370" (1.0 m) core area unit tested at a rainfall rate of 3" per hour (75 mm/hr) and with a wind directed to the face of the louver at a velocity of 29.1 mph (13 m/s). The test data shall show the water penetration effectiveness rating at each corresponding ventilation rate.

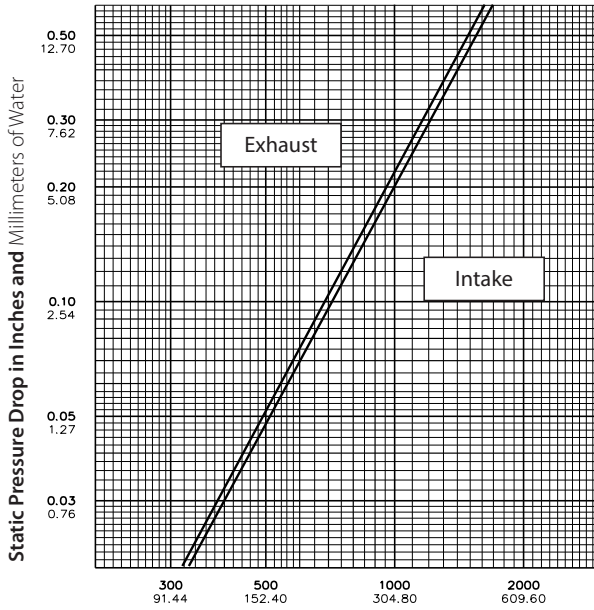
29.1 mph (13 m/s) & 3" (75 mm) rain per hour

Core Velocity Through Cal. Plate (m/s):	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0
Core Velocity Through Louver (ft/min):	0	97	202	297	392	496	593	685	786	887	984
Free Area Velocity (ft/min):	0	191	397	583	770	974	1165	1345	1544	1742	1933
Rating Effectiveness:	A	A	B	B	B	B	C	C	D	D	D
Effectiveness Ratio (%):	99.3	99.0	98.8	98.7	98.7	97.3	94.1	82.0	71.8	76.5	79.4

50 mph (22.3 m/s) & 8" (203 mm) rain per hour

Core Velocity Through Cal. Plate (m/s):	0.0	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	4.5	5.0	
Core Velocity Through Louver (ft/min):	0	96	196	287	396	481	602	714	805	898	994	
Free Area Velocity (ft/min):	0	189	385	564	778	945	1182	1402	1581	1764	1952	
Rating Effectiveness:	B	B	B	B	B	B	C	C	C	C	C	
Effectiveness Ratio (%):	97.8	97.4	97.1	96.7	96.2	95.5	93.3	90.8	87.6	85.0	84.6	
Effectiveness Rating:	A = 1 to 0.99			B = 0.989 to 0.95			C = 0.949 to 0.80			D = Below 0.80		

# Model PL-4080 - 3/8" (9.53 mm) Hole Pattern 7.5" (190.5 mm) Perforated High Performance Louver



**Air Velocity in Feet and Meters per Minute Through Free Area**

Data corrected to standard air density.  
48" x 48" (121.92cm x 121.92cm) louver tested to figure 5.5.

**Free Area Table** (Free area in sq. feet and sq. meters)

For additional sizes, please visit:  
<https://www.c-sgroup.com/louvers-airflow-tool>

		Width in Inches and Meters							
		18	24	30	36	42	48	54	60
Height in Inches and Meters	18	0.46	0.61	0.76	0.91	1.07	1.22	1.37	1.52
	0.46	0.09	0.12	0.15	0.19	0.22	0.26	0.29	0.32
	24	1.18	1.65	2.11	2.57	3.03	3.50	3.96	4.42
	0.61	0.11	0.15	0.20	0.24	0.28	0.32	0.37	0.41
	30	1.61	2.23	2.86	3.49	4.12	4.75	5.37	6.00
	0.76	0.15	0.21	0.27	0.32	0.38	0.44	0.50	0.56
	36	1.86	2.59	3.31	4.04	4.77	5.49	6.22	6.95
	0.91	0.17	0.24	0.31	0.38	0.44	0.51	0.58	0.65
	42	2.28	3.17	4.07	4.96	5.85	6.74	7.63	8.53
	1.07	0.21	0.29	0.38	0.46	0.54	0.63	0.71	0.79
	48	2.53	3.53	4.52	5.51	6.50	7.49	8.48	9.47
	1.22	0.24	0.33	0.42	0.51	0.60	0.70	0.79	0.88
	54	2.96	4.11	5.27	6.43	7.58	8.74	9.89	11.05
	1.37	0.27	0.38	0.49	0.60	0.70	0.81	0.92	1.03
	60	3.21	4.46	5.72	6.97	8.23	9.48	10.74	11.99
	1.52	0.30	0.41	0.53	0.65	0.76	0.88	1.00	1.11
	66	3.63	5.05	6.47	7.89	9.31	10.73	12.15	13.57
	1.68	0.34	0.47	0.60	0.73	0.87	1.00	1.13	1.26
	72	3.88	5.40	6.92	8.44	9.96	11.48	13.00	14.52
	1.83	0.36	0.50	0.64	0.78	0.93	1.07	1.21	1.35
78	4.31	5.99	7.68	9.36	11.04	12.73	14.41	16.10	
1.98	0.40	0.56	0.71	0.87	1.03	1.18	1.34	1.50	
84	4.56	6.34	8.13	9.91	11.69	13.47	15.26	17.04	
2.13	0.42	0.59	0.75	0.92	1.09	1.25	1.42	1.58	
90	4.98	6.93	8.88	10.83	12.77	14.72	16.67	18.62	
2.29	0.46	0.64	0.82	1.01	1.19	1.37	1.55	1.73	
96	5.24	7.28	9.33	11.38	13.42	15.47	17.52	19.56	
2.44	0.49	0.68	0.87	1.06	1.25	1.44	1.63	1.82	
102	5.66	7.87	10.08	12.29	14.51	16.72	18.93	21.14	
2.59	0.53	0.73	0.94	1.14	1.35	1.55	1.76	1.96	
108	5.91	8.22	10.53	12.84	15.15	17.46	19.78	22.09	
2.74	0.55	0.76	0.98	1.19	1.41	1.62	1.84	2.05	
114	6.33	8.81	11.29	13.76	16.24	18.71	21.19	23.67	
2.90	0.59	0.82	1.05	1.28	1.51	1.74	1.97	2.20	
120	6.59	9.16	11.74	14.31	16.89	19.46	22.03	24.61	
3.05	0.61	0.85	1.09	1.33	1.57	1.81	2.05	2.29	

Upper Numerals English Units/Lower Numerals Metric Units