

TABLE 1. COLUMN TYPE CAST-IRON RADIATOR

HEIGHT Inches	GENERALLY ACCEPTED RATING PER SECTION—Sq Ft ^a					
	One Column	Two Column	Three Column	Four Column	Five Column	Six Column or Window
13						3
15		1½				3½
18			2½	3	4½	4½
20	1½	3				5
22		2½	3	4		
23	1½	2½	3½	5	7	
26	2	2½				
32	2½	3½	4½	6½	10	
38	3	4	5	8		
45		5	6	10		

^a The square foot of equivalent direct steam radiation is defined as the ability to emit 240 Btu per hr, with steam at 215 F in air at 70 F. These ratings apply only to installed radiators exposed in a normal manner; not to radiators installed behind enclosures, grilles, or under shelves. (See A.S.H.V.E. Code for Testing Radiators.)

and large-tube radiators, and are particularly suited for installation in recesses.

After a study of the demand for various sizes of radiators, the *Institute of Boiler and Radiator Manufacturers*, in cooperation with the Division of Simplified Practice, *National Bureau of Standards*, established Simplified

TABLE 2. LARGE-TUBE CAST-IRON RADIATORS

Sectional; cast-iron, tubular-tube radiators of the large-tube pattern, that is, having tubes approximately 1½ in. in diameter, 2½ in. on centers.

NUMBER OF TUBES PER SECTION	CATALOG RATING PER SECTION ^a	HEIGHT In.	WIDTH In.	SECTION CENTER SPACING ^b In.	LEG HEIGHT ^c TO TAPPING In.
	Sq Ft				
3	1½	20	4½	2½	4½
	2	23	4½	2½	4½
	2½	26	4½	2½	4½
	3	32	4½	2½	4½
	3½	38	4½	2½	4½
4	2½	20	6½	2½	4½
	2½	23	6½	2½	4½
	3½	26	6½	2½	4½
	4½	32	6½	2½	4½
5	2½	20	8	2½	4½
	3	23	8	2½	4½
	3½	26	8	2½	4½
	4½	32	8	2½	4½
	5	38	8	2½	4½
6	3	20	9½	2½	4½
	3½	23	9½	2½	4½
	4	26	9½	2½	4½
	5	32	9½	2½	4½
	6	38	9½	2½	4½
7	2½	14	11½	2½	3
	3	17	11½	2½	3
	3½	20	11½	2½	3 or 4½

^a The square foot of equivalent direct steam radiation is defined as the ability to emit 240 Btu per hr, with steam at 215 F in air at 70 F. These ratings apply only to installed radiators exposed in a normal manner; not to radiators installed behind enclosures, grilles, or under shelves. (See A.S.H.V.E. Code for Testing Radiators.)

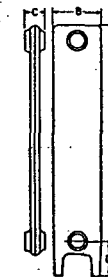
^b Maximum assembly 60 sections. Length equals number of sections times 2½ in.

^c Where greater than standard leg heights are required, this dimension shall be 6 in., except for 7-tube sections, in heights from 18 to 20 in., inclusive, for which this dimension shall be 4½ in. Radiators may be furnished without legs.

^d For 6-tube hospital-type radiation, this dimension is 3 in.

TABLE 3. SMALL-TUBE CAST-IRON RADIATORS

NUMBER OF TUBES PER SECTION	CATALOG RATING PER SECTION ^a Sq Ft	SECTION DIMENSIONS				
		A Height ^a	B Width		C Spacing ^b	D Leg Height ^c
		In.	Minimum In.	Maximum In.	In.	In.
3 ^d	1.6	25	3½	3½	1½	2½
	1.6	19	4½	4½	1½	2½
4 ^d	1.8	22	4½	4½	1½	2½
	2.0	25	4½	4½	1½	2½
5 ^d	2.1	22	5½	6½	1½	2½
	2.4	25	5½	6½	1½	2½
6 ^d	2.3	19	6½	8	1½	2½
	3.0	25	6½	8	1½	2½
	3.7	32	6½	8	1½	2½



^a The square foot of equivalent direct steam radiation is defined as the ability to emit 240 Btu per hr, with steam at 215 F in air at 70 F. These ratings apply only to installed radiators exposed in a normal manner; not to radiators installed behind enclosures, grilles, etc. (See A.S.H.V.E. Code for Testing Radiators adopted January, 1927).

^b Length equals number of sections times 1½ in.

^c Overall height and leg height, as produced by some manufacturers, are one inch (1 in.) greater than shown in Columns A and D. Radiators may be furnished without legs. Where greater than standard leg heights are required this dimension shall be 4½ in.

^d Or equal.

Practice Recommendation R174-47 for small-tube cast-iron radiators Table 3 shows the size and dimensions now being manufactured.

Wall radiators are now rated in terms of equivalent square feet of direct radiation EDR. Tests have shown that the heat emitted from a wall-type radiator may be reduced from 5 to 10 per cent if the radiator is placed near the ceiling with the bars horizontal and in an air temperature exceeding 70 F. When radiators are placed near the ceiling, there is usually such a large difference in the temperature between the floor level and the ceiling that it becomes difficult to heat the living zone of the rooms satisfactorily. Dimensions and heat emission rates for wall radiators are given in Table 4.

Baseboard radiation consists of long, low units which are made to resemble conventional baseboards, and are installed along the outside walls of rooms in place of the usual wooden baseboard. Units are made either of hollow cast-iron panels (with, or without fins on the back) or of ferrous or non-ferrous finned tubing installed behind a metal enclosure. They are primarily used in hot water systems, but may also be used in two-pipe steam systems.

There are various kinds of baseboard radiation available,¹ the *radiant* type and the *convector* type. Radiant baseboards have a substantial portion of the front face water backed, and do not depend upon an en-
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TABLE 4. CAST-IRON WALL RADIATORS

APPROXIMATE DIMENSIONS—INCHES			HEAT OUTPUT, EDR
Height	Length or Width	Thickness	
13½	16½	3	6½
13½	22	3	8
22	13½	3	11
13½	20	3	11
20	13½	3	11