

**Boston, MA #31****SI**

TABLE 301.1 EXTERIOR DESIGN CONDITIONS

WINTER Design Dry Bulb: minus 14°C	HDD18: 3208
SUMMER Design Dry Bulb: 31°C; Mean Coincident Wet Bulb: 22°C	CDD18: 386
Annual Operating Hours, 8AM - 4PM when 12.8°C <= T <= 20.6°C: 713	

TABLE 402.3.1(A) MAX. THERMAL TRANSMITTANCE (U)

Roof	0.329
Wall adjacent to unconditioned space	0.801
Floor over unconditioned space	0.307

TABLE 402.3.1(B) MAX. EXEMPT SKYLIGHT AREA AS % OF ROOF AREA

Visible Light Transmittance (VLT)	Light level Lux	Range of Lighting Power Densities			
		<10.8	10.8-16.2	16.3-21.5	>21.5
0.75	320	2.3	3.4	4.5	5.6
	540	2.5	4.0	5.5	7.0
	750	2.8	4.6	6.4	8.2
0.50	320	3.6	5.1	6.6	8.1
	540	3.9	6.0	8.1	10.2
	750	4.2	6.9	9.6	12.3

TABLE 402.3.2 MINIMUM THERMAL RESISTANCE (R-VALUE)

Slab on grade: Unheated / Heated:	600 mm	900 mm	1200 mm
Horizontal	R-3/R-5	R-2/R-4	R-2/R-4
Vertical	R-1/R-3	R-1/R-3	R-1/R-3
Wall below grade:	R-2		

TABLE 402.4.1.1 MAX. WALL THERMAL TRANSMITTANCE (Uow)

ILD Range	WWR	HC Range	Insulation Position	
			Interior/Integral	Exterior
All	0 to 100	0.0 - 28	0.505	0.505
0.0 to 16.1	24	29 - 56	0.539	0.676
		57 - 85	0.591	0.750
		85 +	0.630	0.772
	66	29 - 56	0.534	0.630
		57 - 85	0.568	0.687
		85 +	0.596	0.704
16.2 to 32.3	21	29 - 56	0.545	0.727
		57 - 85	0.613	0.835
		85 +	0.676	0.874
	69	29 - 56	0.534	0.653
		57 - 85	0.579	0.715
		85 +	0.613	0.738
32.4 to 37.7	19	29 - 56	0.551	0.744
		57 - 85	0.625	0.863
		85 +	0.693	0.909
	68	29 - 56	0.534	0.659
		57 - 85	0.579	0.727
		85 +	0.619	0.750

**Boston, MA #31****SI**

TABLE 402.4.1.2 MAXIMUM WINDOW WALL RATIO (WWR)

Internal Load Density (ILD) Range	Projection Factor (PF) Range	Solar Heat Gain Coefficient (SHGC) Range	Fenestration U-Factor (Uof)		
			Base Case		Perimeter Daylighting
			to 2.96	to 2.22	to 0.00
0.0 - 16.1	0.00 - 0.25	0.87 - 0.63	24	25	27
		0.62 - 0.53	28	29	32
		0.52 - 0.44	31	33	37
		0.43 - 0.34	34	37	42
		0.33 - 0.23	38	42	50
	0.26 - 0.50	0.22 - 0.00	44	49	63
		0.87 - 0.63	32	34	38
		0.62 - 0.53	35	38	44
		0.52 - 0.44	38	42	49
		0.43 - 0.34	41	45	55
16.2 - 32.3	0.50 +	0.33 - 0.00	45	50	64
		0.87 - 0.63	37	41	47
		0.62 - 0.53	41	45	54
		0.52 - 0.44	43	48	59
		0.43 - 0.00	45	51	66
	0.00 - 0.25	0.87 - 0.63	21	22	23
		0.62 - 0.53	25	26	28
		0.52 - 0.44	28	29	32
		0.43 - 0.34	31	33	37
		0.33 - 0.23	36	39	45
32.4 - 37.7	0.26 - 0.50	0.22 - 0.00	44	48	59
		0.87 - 0.63	28	30	32
		0.62 - 0.53	32	34	38
		0.52 - 0.44	35	38	43
		0.43 - 0.34	39	42	49
	0.50 +	0.33 - 0.00	44	48	58
		0.87 - 0.63	34	36	41
		0.62 - 0.53	38	41	47
		0.52 - 0.44	41	45	53
		0.43 - 0.00	44	49	59
	0.00 - 0.25	0.87 - 0.63	19	20	20
		0.62 - 0.53	22	23	25
		0.52 - 0.44	25	26	28
		0.43 - 0.34	29	30	33
		0.33 - 0.23	34	36	41
	0.26 - 0.50	0.22 - 0.00	41	45	54
		0.87 - 0.63	25	27	29
		0.62 - 0.53	29	31	34
		0.52 - 0.44	32	35	39
		0.43 - 0.34	36	39	44
	0.50 +	0.33 - 0.00	41	45	53
		0.87 - 0.63	31	33	36
		0.62 - 0.53	35	37	43
		0.52 - 0.44	38	41	48
		0.43 - 0.00	41	45	54