



Load Dominance

Envelope Dominated Buildings

Internally Dominated Buildings

Comparison of Envelope- and Internally Dominated Building Types

Characteristic	Envelope Dominated	Internally Dominated
Balance point temperature*	60°F	60°F or less
Building form	Spread out	Compact
Surface area-to-volume ratio	High	Low
Internal heat gain	Low	High
Internal rooms	Very few	Many
Number of exterior walls of typical room	2 to 3	0 to 1
Use of passive solar heating	Yes, except in very hot climates	No, except in very cold climates
Typical examples	Restrooms, small office building, some small schools	Large office and school buildings, mall stores, theaters, factories

L: p.224, T9.5a

Internally Dominated Buildings

Heating/Cooling periods

Overheated and Underheated Periods for Internally Dominated Buildings**

Climate Region	Reference City	JAN.	FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.
1	Hartford, CT	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated
2	Madison, WI	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated
3	Indianapolis, IN	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated
4	Salt Lake City, UT	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated	Overheated

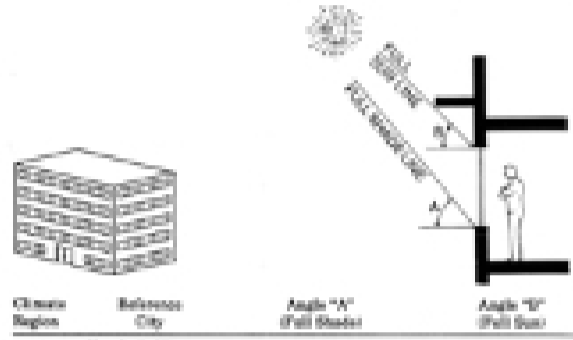
L: p. 225, T9.5b

Sun Control

South Façade Overhangs

Internally Dominated Buildings

Using South Overhangs on Internally Dominated Buildings**



Climate Region	Reference City	Angle "A" (Full Shade)	Angle "B" (Full Sun)
1	Hartford, CT	80	54
2	Madison, WI	66	47
3	Indianapolis, IN	53	47
4	Salt Lake City, UT	40	40

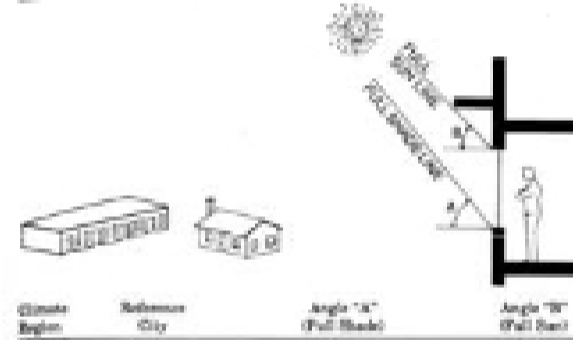
L: p. 230, T9.9a

Sun Control

South Façade Overhangs

Envelope Dominated Buildings

Using South Overhangs on Envelope Dominated Buildings**



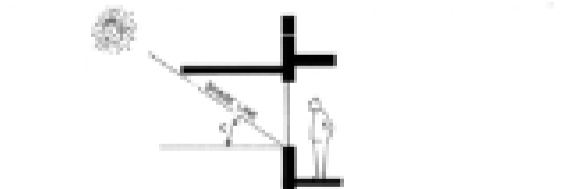
Climate Region	Reference City	Angle "A" (Full Shade)	Angle "B" (Full Sun)
1	Hartford, CT	80	54
2	Madison, WI	66	47
3	Indianapolis, IN	53	47
4	Salt Lake City, UT	40	40

L: p. 231, T9.9b

Sun Control

East/West Façade Overhangs

Using East and West Horizontal Overhangs**



Climate Region	Reference City	Internally Dominated	Envelope Dominated
1	Hartford, CT	30	34
2	Madison, WI	30	34
3	Indianapolis, IN	25	22
4	Salt Lake City, UT	20	20

L: p. 235, T9.12
