

3.7.4 Advanced Energy Design Guide for Small Retail Buildings (1)**Shell**

Percent Glass	0.4
Window (U-Factor)	0.38-0.69
SHGC	0.40-0.44
Wall R-Value (2)	7.6-15.2 c.i.
Roof R-Value	
Attic	30-60
Insulation Above Deck	15-25 c.i.

Lighting

Average Power Density (W/ft. ²)	1.3
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System and Plant

Heating Plant

Gas Furnace(>225 kBtuh)	80% Combustion Efficiency
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Cooling Plant

Air conditioner (>135-240 kBtuh)	10.8 EER/11.2 IPLV - 11.0 EER/11.5 IPLV
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Service Hot Water

Gas Storage Water Heater (>75kBtuh)	90% Thermal Efficiency
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Note(s): 1) Guide provides approximate parameters for constructing a building which is 30% more efficient than ASHRAE 90.1-1999. Ranges are due to climate zone dependencies. 2) Assumes a wall with heat content greater than 7 Btu/ft².

Source(s): ASHRAE, Advanced Energy Design Guide for Small Retail Buildings, 2008.