LOW RISE RESIDENTIAL REQUIREMENTS

LESS THAN 3 STORIES AND R-1 EXCEPT HOTEL / MOTEL
OR R-3 DUPLEX AND SINGLE FAMILY

New Requirements	Specific Requirement	Exceptions
Window Replacements	High Efficiency - Minimum U=0.67	None
Duct Insulation	Minimum R-6	None
Duct Sealing	All joints shall be sealed to prevent air leakage.	None
Pipe Insulation	Hot water piping to kitchen to be fully insulated with 1" thick insulation	None
Building Insulation Minimum	Ceilings - R-30, Walls -R-13, Floors R-19	
Lighting Requirements - Applies to ALL permanently installed fixtures		
Kitchens	All Lighting to be High Efficacy Luminaries with electronic ballasts	Up to 50% may be non high efficiency provided they are on separate switches
Bathrooms, Garages, Laundry Rooms and Utility rooms	All Lighting to be High Efficacy Luminaries with electronic ballasts	May be non high efficiency if switching is controlled by an occupancy sensor with no override capabilities
ALL other permanently installed lighting ie: bedrooms, halls, dining rooms, etc.	All Lighting to be High Efficacy Luminaries with electronic ballasts	1) May be non high efficiency if switching is controlled by a Dimmer Switch
		2) May be non high efficiency if switching is controlled by a manual on occupancy sensor with no override capabilities
		3) Non high efficiency fixtures in closets of 70 sq. ft. or less.
Recessed Lighting	IC rated cans only with an air tight designation of 2.0 CFM and shall be sealed and gasketed between the ceiling and housing	None
Outdoor Lighting	Permanently installed outdoor lighting shall be high efficacy luminaries	1) May be non high efficiency if switching is controlled by an motion sensor with interagal photo control
		2) Swimming pools and water features.

HIGH EFFICACY LAMP REQUIREMENTS		
Lamp Power Rating	Minimum Lamp Efficacy	
15 watts or less	40 lumens per watt	
15 to 40 watts	50 lumens per watt	
Over 40 watts	60 lumens per watt	
NOTE: High efficiency lighting does not have a medium screw lamp base.		

LIGHTING EFFICIENCY CALCULATION WORKSHEET		
When calculating the energy use of low-efficacy (screw-based) lighting for residential kitchens, it does not matter what lamp wattage or lamp type is used in a screw-based fixture. It must always be assumed that an incandescent lamp of the maximum relamping rated wattage will be used. Factory maximum wattage label used for this calculation		
Low Efficacy System	**Required High Efficacy System**	**Allowed Exceptions**
Example 1		
	Minimum required	
1 recessed can light with screw based socket	100 watts	
Relamping rate wattage on factory installed label = 100 watts	Example : 4 CF fixtures x 26 watts = 104 watts	
Low efficacy system = 100 watts	Assuming input wattage on electronic ballast = 26 watts.	
Example 2		
	Minimum required for Kitchen	
2 recessed can light with screw based socket	200 watts	None for required flourscent but other low efficacy must be on separate switch
Relamping rate wattage on factory installed label = 100 watts	Example : 5 CF fixtures x 26 watts = 130 watts	
	Plus minimum of 70 watts high efficacy / electronic ballasts under cabinet lighting.	
Low efficacy system = 200 watts	Assuming input wattage on electronic ballast = 26 watts.	
Example 3		
	Minimum Required for Kitchen	
8 recessed can light with screw based socket and 2 hanging counter lights	1000 watts	None for required flourscent but other low efficacy must be on separate switch
	Example : 10 CF fixtures x 26 watts = 260 watts	
Relamping rate wattage on factory installed label = 100 watts	Plus minimum of 740 watts high efficacy / electronic ballasts under cabinet lighting.	
Low efficacy system = 1000 watts	Assuming input wattage on electronic ballast = 26 watts.	
Example 4		
	Minimum Required for Bedroom	
4 can lights	400 watts	Can use Dimmer or Manual on occupancy sensor in lieu of high efficacy fixtures
Relamping rate wattage on factory installed label = 100 watts		
Low efficacy system = 400 watts		