STATEWIDE RESIDENTIAL LIGHTING AND APPLIANCES SATURATION STUDY

FINAL APPENDIX
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Strata Definitions

Table 1 shows the definitions of each stratum of the sample design by utility. These definitions may be useful for analyzing results by stratum for each utility.

Utility	Stratum	Definition
SCE	D-APS	Domestic Automatic Powershift
SCE	D-CARE	California Alternate Rates for Energy
SCE	D-CARE-APS	California Alternate Rates for Energy with Domestic Automatic Powershift
SCE	DE	Domestic Service to Utility Employees
SCE	DE-APS	Domestic Service to Utility Employees with Domestic Automatic Powershift
SCE	DOMESTIC	Domestic Service
SCE	D-S	Domestic Seasonal
SCE	TOU-D-1	Time-Of-Use Domestic (Usage = 400 - 600 kWh/month)
SCE	TOU-D-2	Time-Of-Use Domestic (Usage = 600 - 700 kWh/month)
SDG&E	DR	Residential
SDG&E	DRLI	Residential Low Income
SDG&E	DRTOU	Residential Time-of-Use Service
PG&E	E1	Residential Services
PG&E	E1L	Residential CARE Program Service
PG&E	E7	Residential Time-of-Use Service
PG&E	E7L	Residential CARE Program Time-of-Use Service
PG&E	E8	Residential Seasonal Service Option
PG&E	E8L	Residential Seasonal CARE Program Service Option
SMUD	MULTI EAPR ELE	Multi-Family Low Income Electric Heat
SMUD	MULTI EAPR GAS	Multi-Family Low Income Gas Heat
SMUD	MULTI STD ELE	Multi-Family Standard Rate Electric Heat
SMUD	MULTI STD GAS	Multi-Family Standard Rate Gas Heat
SMUD	SINGLE EAPR ELE	Single-Family Low Income Electric Heat
SMUD	SINGLE EAPR GAS	Single-Family Low Income Gas Heat
SMUD	SINGLE STD ELE	Single-Family Standard Rate Electric Heat
SMUD	SINGLE STD GAS	Single-Family Standard Rate Gas Heat

Table 1: Strata Definitions

The MBSS Analysis Tool

The MBSS Analysis Tool is a special software tool for summarizing site characteristics. This section describes how to use the software and the underlying principles.

PURPOSE OF THE SOFTWARE

MBSS is a powerful way to summarize the information contained in the Statewide Residential Lighting and Appliance Saturation database. Here are some examples of the type of statistic that you may obtain:

❑ The average efficiency of various types of equipment
❑ The saturation of high efficiency equipment
❑ The average age of different types
❑ The sizes of equipment
❑ The percentage of homes with equipment having particular efficiency levels, age ranges, sizes, etc.
❑ The average annual kWh energy use of refrigerators.
❑ Insulation and window types

This type of information can be developed for all sites, or for various classifications of sites. Using the standard queries provided in the database, the sites can be classified by any combination of the following variables:

❑ Utility (PG&E, SCE, SDG&E or SMUD),
❑ Type of residence
❑ Total People in Household
❑ Total Adults in Household
❑ Total Heated Floor space
❑ Age of Residence
❑ Household Income
❑ Renters and Owners
❑ Stratum

You can also use Access to design new queries to classify sites by any additional characteristics that you might want.

MBSS calculates all averages to reflect the characteristics of interest and the underlying sampling, so that the resulting statistics are representative of the population of residences in California. The software has options for calculating sample sizes and error bounds (at the 90% level of confidence).

MBSS has been used to prepare all of the information in this report. MBSS can be used to extract additional information from the underlying Access database using the queries that have been provided in the database. In addition, MBSS can be used to analyze new queries to provide even more specialized information.

USING THE SOFTWARE

MBSS can be installed on any computer running Windows 95 or Windows NT. An installation disk is available. When the software is run, the main menu will appear with the Data Base button activated.

Data Base

Click on the Data Base button to select the Microsoft Access database containing the data to be analyzed. Note that MBSS will write the results to this database.
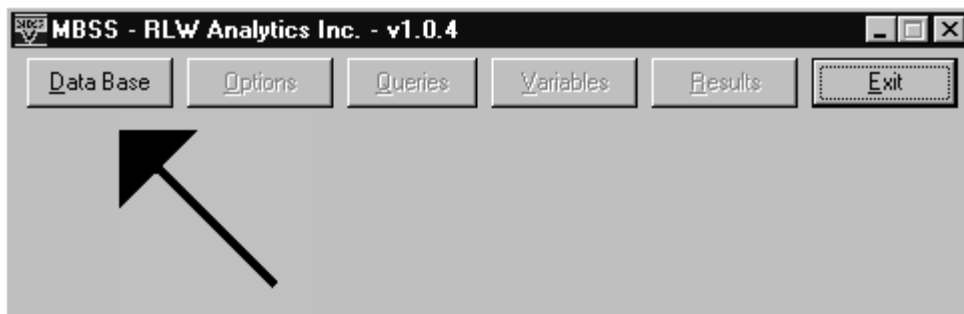
Installation of the MBSS will place two databases in the folder **Program Files\RLW MBSS (VB).** One contains only lighting related data called **statewide res lighting sat.mdb**. The other database, **statewide res appliance sat.mdb** is comprised of data for all other aspects of the study. Click on the Data Base button to select the Microsoft Access database containing the data you would like to analyze. Note that MBSS will write the results to this same database.

Options
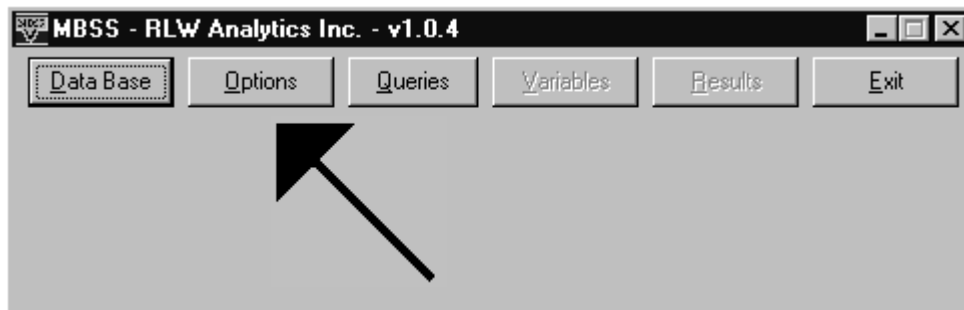
If desired, click on the Options button to select special options. The following special options are available:
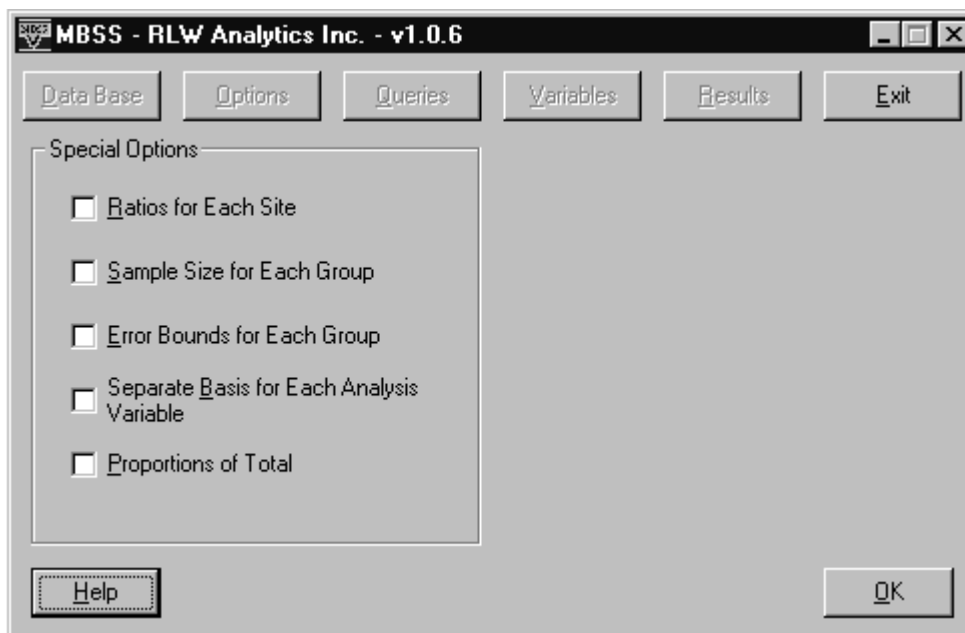
Ratios for each site – This option calculates ratios for each individual sample site and writes the ratios out to an Access table with the name "Sites_…" where … is the Analysis Query name. This is useful for reviewing the characteristics of each sample site. If the Ratio for Each Site option is selected, no other table will be written, i.e. sample size and error bound will not be available and there will be no "results" table.

Sample size for each group – This option calculates and writes out the number of sites used to calculate the results for each group of sites. The results are written to an Access table with the name "SamSizes_…" where … is the Analysis Query name. If a site has a zero basis for a particular characteristic it is not counted. This table will be generated simultaneously with the 'Results_…' table

Error bounds for each group – calculate and write out the error bounds for each characteristic in each group. The 90% level of confidence is assumed. The results are written to an Access table with the name "ErrBnds_…" where … is the Analysis Query name. This table will be generated simultaneously with the 'Results_…' table

Separate basis for each analysis variable – For certain analyses, a separate basis for each variable is required. In order to accommodate these circumstances, separate bases queries have been created. All of

these separate bases queries have been labeled with the prefix sb-. Once this special option has been selected, a selection bow will appear with the list of all the queries contained in the database, select the desired separate bases query from this list. Only choose from those queries with the sb- prefix. Once you have selected a separate bases query, you must select a Categories Query and an Analysis Query associated with that Separate Bases Query.

Proportions of Totals – calculate and write out the total of the characteristic in each group as a fraction of the total of the characteristic across all groups. The results are written to an Access table with the name "Proportions_…" where … is the analysis name. You can also request error bounds for each proportion and sample sizes. The sample size is the total number of sites across all groups, excluding a site if (a) it has zero case weight, or (b) the value of the characteristic is equal to zero.

Queries
Click on the Queries command button to select your Categories and Analysis queries.
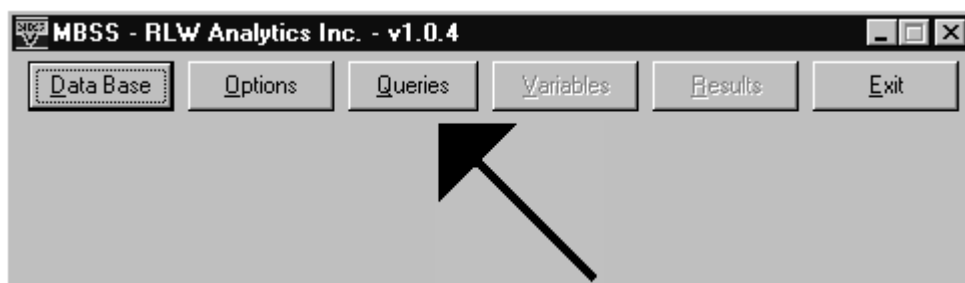
Selecting the Analysis Query
The data available for scrutiny is found in the Analysis Query, the filename of the analysis queries indicate the category query you will need to select and an abbreviated description of the data found in that file. For example, if you wish to analyze the average water heater energy factor, select the Water Heater En Factor Avg from the analysis Query selection box. This file requires the selection of the Categories Query named categories-Water Heater. **The suffix of the Analysis Query must always match the prefix of the Categories query**.
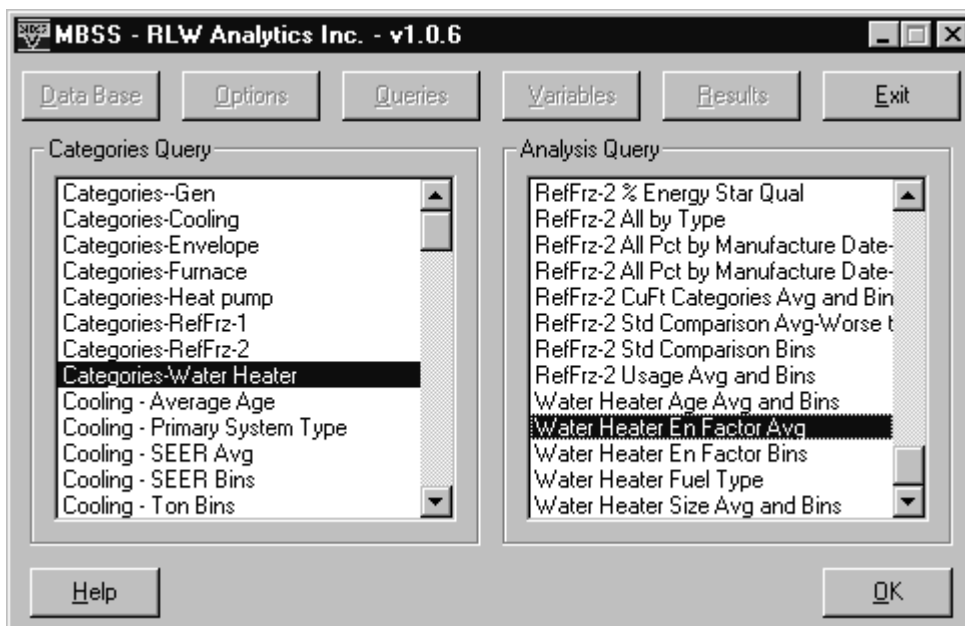
All of the analysis queries in the lighting database with a –SBA sufix have separate bases for each variable; KITCHEN-MOST OFTEN -SBA, KITCHEN SWITCHES-SBA and LIGHTING OVERVIEW-SBA. To analyze the information within these queries choose the categories query associated with the analysis query as usual. Then chooses Special Option from the main screen and the Separate Basis Query from the Special Options menu, the Separate Basis Query has the same root file name as the analysis query with a SB- prefix instead of a –SBA suffix; Namely SB-KITCHEN-MOST OFTEN, SB-KITCHEN SWITCHES and SB-LIGHTING OVERVIEW. Choose the associated separate basis query and click OK.
Note: When using the separate basis option make certain that both queries are sorted in the exact same way, e.g. by Site ID. If they are not sorted exactly the same, no results will be realized.

Selecting the Categories Query:

The categories Query selection box will default for a query named 'Categories--Gen'. This general category query is used for all analysis queries did not require their specific own categories query. Namely clothes dryers, dishwashers, self-standing freezers and washing machines. All of the analysis queries available for use with this category query begin with the prefix gen-.

If you wish to analyze data related to cooling systems, envelope (insulation, frame construction and window type), heating systems (furnaces), heat pumps, refrigerator/freezers (not self standing freezers), or water heaters, you need to choose the categories query for that classification. All category queries have a suffix that denotes the equipment classification, such as categories-cooling that is used for all non heat pump cooling system related data.

There are two categories queries for Refrigerator Freezers. "Categories-RefFrz-1" is used for information regarding the primary refrigerator freezer in each residence. "Categories-RefFrz-2" is used for information regarding for secondary refrigerator freezers.

Variables

Click on the Variable button to select the variables for grouping the sites and the variables to be summarized.

Selecting the Group By variables: If you are using the standard Categories--gen query, the Group By list will contain the following variables: utility, type of residence, total people at residence, total adults at residence, primary language, total household income, age range of residence and whether the building is rented or owned.. You can select or clear any of the variables by clicking the corresponding box. For example, if you select both residence type and utility, results will be developed for all possible combinations of residence type and utility. If no Group By variables are selected, the results will describe all residences taken together. In the example below the residences will be grouped by utility.
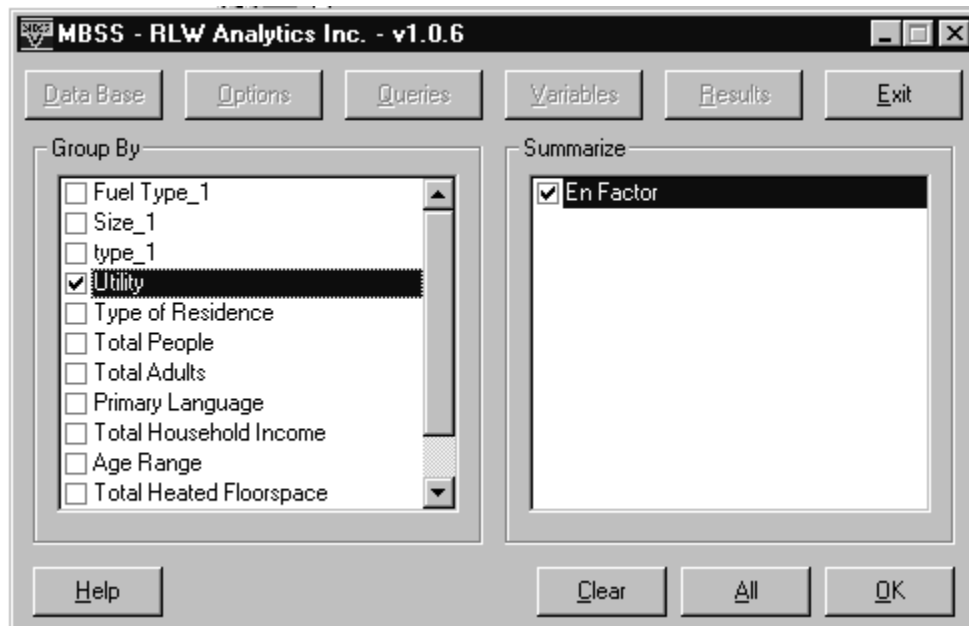
Selecting the Summarize variables: The list will display all of the variables contained in your analysis query except the Site ID and the bases. Each of the variables will be selected since you will usually want to summarize all of these variables.

If the list is very long (e.g., for lighting analyses), you may want to click on the Clear button to select none of the Summarize variables, and then manually select the specific variables you want to analyze. Click on the All button to select all of the Summarize variables. Click OK when you are ready to proceed. In the example above there is only a single variable to be summarized, there must be at least one variable checked for MBSS to run.

Results

Click on the Results button to execute the analysis.

The screen will show the default name for the results table (the same name as the analysis query) and the default name for the first field (ID).

The actual table will be called "Results_…" where … is the name that is shown in Table Name box, in the case shown above the table will be called Results_Water heater En factor Avg. The results table is added to the Access database. The ID field will have the value 1 for the first group, 2 for the second group, etc.

If the results table already exists in the Access database, this means that a previous run has been made using the same analysis query. A warning will appear as shown below:

Click OK and the new results will be appended to the bottom of the preexisting table, the previous results will be overwritten. The ID will be extended automatically. If you are appending to ratio, sample size, error bound or special basis, a warning will appear for each table you are appending to. You will not be able to append to any table that is currently open in Access.

As MBSS is processing your analysis, a message box will be displayed with the SQL (standard query language) for your analysis. This can usually be ignored. If a separate basis for each variable is being used, the identical message box will be displayed a second time.

When the analysis is complete, a message box will be displayed indicating that your results have been saved.

After the results have been written, you must use Access itself to review the results and to prepare reports. Open the Access database, if not already open, and select the 'Tables' list, the results table you have just created should be there. If the Access database was open while MBSS was running, you may need to click on the queries tab and quickly return to the 'Tables' list before the new tables appear on the list.
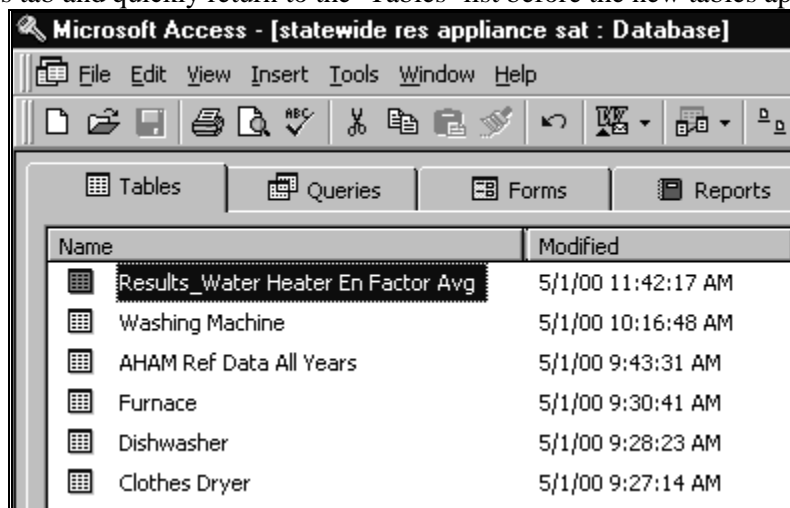
After obtaining your results, you can change the options, queries, or variables and repeat the analysis. For example, suppose you have selected utility as the Group By variables in your first analysis. You may want to continue the analysis by selecting no group by variables. This will summarize your analysis variables for all residences. This will summarize your analysis variables across all residence types and all utilities. A message box will be displayed indicating that your new results will be appended to your existing results table unless you have typed in a new table name.

Here is an example of a results table, the row 5 is all of the utilities taken together.

Note: You must click on the Results button each time you select different options, queries, or variables.

Note: You can open a results table in Access while MBSS is running. However, if you do additional MBSS analysis, you must re-open the database in Access to see the new MBSS results.

Hint: First select all of the Group By variables that you intend to use, and then drop variables from the analysis. This will improve the organization of your results table.

Exit
Click on exit to shut down MBSS.

USING ACCESS TO CREATE NEW QUERIES
You can obtain a wealth of information from the queries that are provided with the database. However, you can also use Access to create additional queries. But if you create a new query you must make sure it follows the following format.
Note: You can not open an Access Table directly in MBSS. If your data is in a table, design an Access query based on your table.
Note: The name of each of your variables (fields) should start with a letter. Do not use numbers alone as field names.

Creating a new Categories Query
The Categories query contains the categorical variables that can be used to form groups of sites. For example, if you want to group the sites by size you can create a new Categories query with a Size categorical variable.
Note: Each categorical variable should take a limited number of distinct values. For example, you should use several square footage intervals rather than square footage itself.

Format of the Categories Query
The following format is required. Any deviation will cause an error.

Field 1:   Site ID (required)
Field 2:   Case weight (required)
Fields 3 to j: Any desired categorical variables

Creating a new Analysis Query

The Analysis query is used to specify the variables to be analyzed. Usually the Analysis query also includes the basis to be used in the analysis of each of the variables. In some cases, however, each of the analysis variables requires a separate basis. In this case the bases are provided in a separate query.

Format of the Analysis Query

The following format is required. Any deviation will cause an error.
Field 1:   Site ID (required)
Field 2:   Case weight (required)
Fields 3 to j: Exactly the same categorical variables as the Categories query
Field j+1:   Site ID (required)
Field j+2:   Basis (required unless a Special Basis is used; if a Special Basis is used this field must be omitted)
Added fields: All variables to be analyzed or summarized
Note: Fields 1 to k are the same as the Categories query. These are usually obtained by using Access to join the Categories query to a table containing the basis variable and the variables to be analyzed.
 Note: Your Categories and Analysis queries must have the same number of records. This is usually achieved by joining the underlying tables or queries by Site ID.
Note: The basis and the variables to be summarized must be numeric. Empty fields are converted to zeros.
Note: If the basis is equal to 1.0 for all sites, then MBSS will give the average value of the analysis variable per site in the population. See the underlying principles for more information.
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Creating a new Separate Basis Query

A separate basis query is used to summarize a set of related variables using a unique basis for each variable. For example, the efficiency of different types of equipment can be summarized using the connected load of each category as a separate basis.

Format of the Separate Basis Query

The following format is required. Any deviation will cause an error.
Field 1:   Site ID (required)
Field 2:   Case weight (required)
Fields 3 to j: Exactly the same categorical variables as the Categories query
Field j+1:   Site ID (required)
Added fields: The basis for each analysis variable included in the Analysis query.
Note: The Special Basis query must have the same number of variables as the Analysis query. <u>The name of each basis variable in the special basis query must be identical to the corresponding variable in the Analysis query. This includes case sensitivity</u>
Note: Fields 1 to k are the same as the Categories query. These are usually obtained by using Access to join the Categories query to a table containing the basis variables.
Note: The basis variables to be summarized must be numeric. Empty fields are converted to zeros.
Note: Your Categories, Summarize, and Special Basis queries must have the same number of records. This is usually achieved by joining the underlying tables or queries by Site ID.

Combining Characteristics

Some of the existing queries may provide a higher level of detail than you want. For example, the lighting fixture query describes nine different types of lighting fixtures. For some purposes you may want to combine several of these types. To combine several types of fixture, simply create a new query from

the existing query. Retain all of the categorical variables and the basis variable but construct a new analysis variable as the sum of the analysis variables in the original query corresponding to each of the types to be combined.

If a special basis is being used, a new special basis query should be constructed in the same way. The basis for the new combination should be the sum of the basis for each of the types to be combined.

UNDERLYING PRINCIPLES

Why is a special tool needed? Two issues must be considered in summarizing the characteristics of a set of sites. First, the summary must reflect the basis of each characteristic. Second, the summary must reflect appropriate sampling weights.

Example 1

As a first example, suppose you want to know the energy factor, EF, of water heaters in a given population. Note that for water heaters, EF is defined as the energy content in the hot water delivered divided the total energy use of the water heater.

Similarly, the EF of a set of water heater supplied hot water energy delivered to the residents divided by the total annual kWh energy use. This can be written as

$$EF = \frac{\sum\limits_{k \in P} AED_k}{\sum\limits_{k \in P} AEC_k}$$

Here AED_k is the annual energy content delivered from each water heater k and AEC_k is annual energy consumed by water heater k in the target population P. The denominator of this equation, annual energy consumption, will be called the *basis* of this EF characteristic.

The preceding equation can also be written as

$$EF = \frac{\sum\limits_{k \in P} \left(EF_k \times AEC_k\right)}{\sum\limits_{k \in P} AEC_k}$$

Here EF_k is the energy factor of each site k. This second equation shows that the average EF is a weighted average of the EF of each site, using annual energy consumption as the weight.

In practice, of course, we must work with a sample of sites rather than the full population. In this case, we define the case weight w_k of each sample site k to be the number of sites in the population that it is thought to represent. The case weight w_k is the key to unbiased extrapolation from the sample sites to the population sites. In theory, the case weight should be the reciprocal of the inclusion probability under the sample design. For example, if the sample design specifies that 10 sites are to be randomly selected for the sample from a stratum containing 1,000 sites, the inclusion probability in this stratum is 10 / 1,000 and the case weight is 100.

We can estimate the water heater population EF using the following equation:

$$EF = \frac{\sum\limits_{k \in s} w_k \ AED_k}{\sum\limits_{k \in s} w_k \ AEC_k}$$

Here *s* denotes the sample sites. This can also be written as

$$EF = \frac{\sum\limits_{k \in P} w_k \left(EF_k \times AEC_k\right)}{\sum\limits_{k \in P} w_k \ AEC_k}$$

Example 2

Consider a second example. Suppose we want to estimate the proportion of freezers in a particular age range. We define a variable L_k to be the indicator variable for the characteristic 'home has a freezer of known age.' Specifically $L_k = 1$ if home k has a freezer and the age of the freezer is known, $= 0$ otherwise. Similarly we define L_{hk} to be the indicator variable for the characteristic 'home has a freezer of known age and the size is in a particular age range h.' Then the population proportion p_h of freezers in the age range h is equal to

$$p_h = \frac{\sum_{k \in P} L_{hk}}{\sum_{k \in P} L_k}$$

If we are working with a sample, we can estimate the population proportion of freezers in the age range h by calculating the following for each hour h.

$$p_h = \frac{\sum_{k \in s} w_k \, L_{hk}}{\sum_{k \in s} w_k \, L_k}$$

This type of calculation can be carried out for any desired selection of sites. For example, we can calculate energy factors or proportions for various building types, climate zones, or utility service areas, i.e., for any group in the population that is identified by the selected categories variables. In this case s denotes the set of sites falling within the designated group.

General Form

The preceding examples have the same general form – that of a stratified ratio estimator.

For each site k, the characteristic of interest is often a ratio $R_k = y_k / x_k$, e.g., kWh per square foot, or kW in hour h divided by total connected kW. In general MBSS terminology, y_k is called the dependent variable and x_k is the explanatory variable. In the present application, we have called y_k the variable to be analyzed or summarized, and we have called x_k the basis variable.

Then the population characteristic of interest is the ratio

$$R = \frac{\sum_{k \in P} y_k}{\sum_{k \in P} x_k}$$

The preceding equation can also be written

$$R = \frac{\sum_{k \in P} x_k \, R_k}{\sum_{k \in P} x_k}$$

In this form it is evident that R is a weighted average of the values of R_k for all sites in the target population.

Generally we do not the values of both y_k and x_k for all sites in the population. But for each site in the sample, we do have a weight w_k that can be used to extrapolate the sample to the population. In this case we calculate an estimate of R that is denoted $\hat{R}$ and calculated using the equation:

$$\hat{R} = \frac{\sum_{k \in s} w_k \, y_k}{\sum_{k \in s} w_k \, x_k}$$

The preceding equation can also be written

$$\hat{R} = \frac{\sum_{k \in s} w_k \, x_k \, R_k}{\sum_{k \in s} w_k \, x_k}$$

Error Bounds

MBSS can calculate the statistical error bound for any ratio estimate. The error bound can be used to calculate a confidence interval for the true characteristic in the population. For example suppose the EF has been found to be 0.60, with an error bound of 0.02. Then corresponding confidence interval is 0.60 ± 0.02 kWh / square foot, or 0.58 to 0.62 . All error bounds are at the 90% level of confidence. Following MBSS principles, the error bound *eb* is calculated using the following equations:

$$e_k = y_k - \hat{R} x_k$$

$$V(\hat{R}) = \frac{\sum_{k \in s} w_k (w_k - 1) e_k^2}{\left(\sum_{k \in s} w_k \, x_k \right)^2}$$

$$eb = 1.645 \sqrt{V(\hat{R})}$$

With ratio estimation, the error bound is affected by several factors including the sample size and the weights. But the most important factor is generally the strength of the association between the two variables y_k and x_k for all sample sites. If y_k is consistently close to $\hat{R}$ times x_k for all sample sites, then there is a strong association between the two variables. In this case, the error bound will be small. In effect, if R_k is fairly stable from site to site, then we can estimate the value of *R* in the population with good statistical precision.

Averages

MBSS can also estimate the average value of a variable in a population. We define *N* to be the total number of sites in the population. Then the population average of *y*, denoted μ , is defined to be

$$\mu = \frac{1}{N} \sum_{k=1}^{N} y_k$$

The sample estimate of the population mean μ is denoted $\bar{y}$. With a weighted sample, the sample mean is calculated using the equation

$$\bar{y} = \frac{\sum_{k \in s} w_k \, y_k}{\sum_{k \in s} w_k}$$

The preceding equation can be obtained from the standard ratio equation by defining $x_k = 1$. In words, the average of *y* is obtained by using *y* as the variable to be summarized and by choosing 1 as the basis. Note: The error bound calculated by MBSS may be misleading in this situation since it does not reflect stratification.

GENERAL FORM OF THE QUERIES

This section describes the format of the queries using the notation developed in the preceding sections.

Categories Query

Field 1	Site ID, k
Field 2	Case weight, w_k
Field 3 to j	Any desired categorical variables used to group the sites

Analysis Query

Field 1	Site ID, k
Field 2	Case weight, w_k
Field 3 to j	The same categorical variables as in the categories query
Field j+1	Site ID, k
Field j+2	Basis, x_k (omitted if a special basis is used)
Added Fields	One or more y_k

Special Basis Query

Field 1	Site ID, k
Field 2	Case weight, w_k
Field 3 to j	The same categorical variables as in the categories query
Field j+1	Site ID, k
Added Fields	Basis, x_k for each y_k in the analysis query (with the <u>same name</u>)

ADDITIONAL OPTIONS

MBSS provides special options for calculating:

❑ The sample size option calculates the number of sample sites for each result, excluding cases for which $w_k x_k = 0$ and $w_k y_k = 0$.

❑ The site specific ratios option calculates $R_k = y_k / x_k$ for each site k.

❑ The proportions of total option calculates

$$\hat{p} = \frac{\sum_{k \in g} w_k \ y_k}{\sum_{k \in s} w_k \ y_k}$$

Here g is any specific group determined by the selected category variables, and s is the full sample across all groups.

Lighting Fixture and Lamp Type Descriptions

The following table provides descriptions of the fixture types that were differentiated during the on-site data collection.

Fixture Type	Fixture Description
Architecturally Integrated	Fixtures incorporated into the structure of the residence such as valence and cove style lighting fixtures that may incorporate indirect lighting. Also includes directional fixtures for display of art and fixtures that are integrated into cabinetry.
Ceiling Fan	Any ceiling mounted fixture that incorporates an operable fan in the design of the fixture. This excludes bathroom fans that include a lamp in its design.
Chandelier / Hanging	Typical decorative chandeliers with one or more lamps. Also includes any fixture that is suspended from the ceiling by a flexible or rigid medium such as a piece of chain.
Ceiling Mount	Fixtures that are mounted directly onto the ceiling surface.
Floor Lamp	Any fixture, excluding torchierres, which has its base directly on the floor.
Garage Door Opener	Garage door opener that includes a lamp.
Other	Any fixture not matching one of the other category descriptions.
Recessed Can	Cylindrical cans that are set into a ceiling with the bottom edge of the can flush with the ceiling surface (recessed). These fixtures are designed to direct the light downwards.
Recessed Lighting - Other	Any other shape of fixture besides a can, square for example, that is set into the ceiling and has the bottom of the fixture flush with the ceiling surface.
Table Lamp	Fixtures that are placed on raised surfaces. Could be an end table lamp or a desk light for example.
Torchierre	Floor lamps usually five to six feet in height that direct the light source upwards.
Track Lighting	Multiple lamps and casings mounted to a linear piece of material, which itself is attached to either a ceiling or wall surface. The individual lamps can usually be adjusted to direct the light in a specific direction.
Under Counter	This fixture is typically mounted underneath cabinets so they illuminate the surface under the cabinet it's mounted to.
Wall Mount	Fixtures that are mounted directly to a vertical wall and are not utilized to illuminate art.

The following table provides descriptions of the lamp types that were differentiated during the on-site data collection.

Lamp Type	Description
Compact Fluorescent Overview	Discharge lamps, with necessary ballast, available in multiple sizes that are used as energy efficient options for fixtures that typically utilize incandescent lamps. The different lamp wattage, shape, and ballast/lamp combinations of compact fluorescent lamps (CFL's) are briefly discussed next.
Compact Fluorescent Unknown	A CFL that doesn't fit into one of the other CFL categories or for a CFL whose specific type was unobservable because a fixture cover obstructed it, for example, during the on-site.
Compact Fluorescent Globe	An integral CFL that has the illuminating fluorescent tubes covered with a globe shaped piece of glass. The lamp tubes are not visible to the eye because of this cover.
Compact Fluorescent Integral	Integral describes the lamp/ballast relationship of the CFL. This type of CFL is made up of one piece incorporating the lamp and ballast. If either the lamp or ballast component breaks, the whole unit has to be replaced.
Compact Fluorescent Modular	Modular describes the lamp/ballast relationship of the CFL. The lamp and ballast are separate and either can be replaced without replacing the other when utilizing a CFL modular.
Compact Fluorescent Reflector	This lamp type is a CFL, regardless if it is integral or modular, which incorporates a parabolic aluminized reflective surface to reflect light onto the illuminated surface.
Compact Fluorescent Square	This CFL has its tubes in the shape of a square, which results in a thin lamp profile useful for torchierre and some recessed ceiling fixture applications.
Fluorescent Overview	Refers to type of lamps that utilize a glass tube, gases, and electric currents to produce light. Types of fluorescent lamps that are differentiated for this project are discussed.
Fluorescent T12	Multiple length linear fluorescent tubes with a diameter of one and a half inches. Differentiation between standard and low watt T12 lamps wasn't made on site.
Fluorescent T8	Multiple length linear fluorescent tubes with a diameter of one inch.
Fluorescent Circline	T12 or T8 fluorescent tubes that are circular in shape.
Fluorescent Other	Some possible examples of an 'other' fluorescent lamp are the T5 lamps that are often found in under counter fixtures and U-tube fluorescent lamps.
Fluorescent Tube Unknown	A type of fluorescent lamp that the surveyor was unable to identify. This type would have been selected if the surveyor were unable to verify lamp because the fixture was inaccessible, the customer didn't want surveyor to open fixture, or the surveyor couldn't identify the type but knew that it was a fluorescent lamp.
Halogen Overview	Halogen lamps utilize incandescent lamp technology with the exception that a halogen gas is added. They have different shapes than incandescent lamps and are usually more compact.
Halogen Other	Any identified tubular or capsulated halogen lamp not in the

	categories listed. MR16 lamps are an example of a halogen lamp listed as other.
Halogen Parabolic Reflector	A screw in halogen lamp enclosed in a capsule with a reflective surface. A piece of textured glass covers the light source, thus making it easy to distinguish between a parabolic reflector halogen and a reflective incandescent.
Halogen Tubular	Single ended and double ended halogen lamps that utilize a tubular shape. The lamps are not encapsulated like the parabolic reflector type.
Halogen Unknown	Any type of halogen lamp that the surveyor was unable to identify.
Incandescent Overview	Incandescent lamps utilize the passing of electric current through a filament causing the filament to emit light. All incandescent lamps screw in the light socket.
Incandescent Standard	Typical A-lamp incandescent lamps with an elliptical shape that becomes wider towards the top of the lamp.
Incandescent Decorative	Incandescent lamps in the shape of candles, for example, that are used in chandeliers and other fixtures for decorative purposes.
Incandescent Globe	Types of incandescent lamps that have a round shape, as opposed to the elliptic shape of standard A-type incandescent lamps.
Incandescent Other	Any type of incandescent lamp that the surveyor found and was unable to assign it to a known category.
Incandescent Reflector	A reflective material is applied to the inside of the lamp to reflect more light onto the illuminating surface. The top of the fixture has a larger diameter than standard A-type lamps.
Incandescent Unknown	Any type of incandescent lamp that the surveyor was unable to identify.

Lighting Data Tables and Queries

GENERAL INFORMATION

The general information tables and queries provide general background information for the site. This data can be used with the existing queries to conduct analysis for various subgroups.

Tables

General Information Table

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
Type of Residence	Single Family Home, Apartment, etc.	
Residence-Other	Residence type not on data collection list	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
People Under 1 year	Total Number of People Under 1 Year at Site	
People 2 to 5 years	Total Number of People between 2 to 5 years at site	
People 6 to 18 years	Total Number of People between 6 to 18 years at site	
People 18 to 29 years	Total Number of People between 18 to 29 years at site	
People 30 to 49 years	Total Number of People between 30 to 49 years at site	
People 50 to 64 years	Total Number of People between 50 to 64 years at site	
People 65 or more years	Total Number of People over 65 years at site	
Primary Language	Primary Language Spoken at Household	
Primary Language-Other	Primary Language not on data collection list	
Total Household Income	Annual Household Income Range	Resident Supplied
Year Built	Estimated Year Built	
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Remodeled in Last 10 yrs?	Recent Remodel of Residence	
If yes-what was remodeled?	Type of Remodeling at Residence	Cosmetic, Lighting, Appliances
If lighting remodeled-which rooms?	Rooms in which lighting was remodeled in last 10 years	
Plan to Remodel in next 2 yrs?	Future Remodel Status of Residence	
If yes-what will be remodeled?	Future Type of Remodeling at Residence	Cosmetic, Lighting, Appliances
Programmable thermostat?	Programmable Thermostat present at site	
Rent or Own	Ownership Status of Residence	
Who Pays Electric? (Occ or	Responsibility for Electric Bill	

Landlord)		
Who Pays Gas?	Responsibility for Gas Bill	
Refrigerator owner?	Owner of Refrigerator	
Washing Machine owner?	Owner of Washing Machine	
Dryer owner?	Owner of Dryer	
Air Conditioner owner?	Owner of Air Conditioner	
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Audit Date	Estimated Date of On Site survey	
Audit Team	Audit team that completed survey	RLW or ASW
Comments	Any additional comments about the residence that the auditor observed	i.e. reasons why some appliances were not observable or any challenges encountered at the site

Queries

Categories—Gen

The categories—gen query is the primary categories query. This query is used in the design of all analyses, unless otherwise stated.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
Utility	Electrical Provider of Residence	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	
Remodeled in Last 10 yrs?	Recent Remodel of Residence	

Categories –Switches

The categories-switches query must be used when conducting any analyses regarding kitchen light switches. Theses queries will contain the word *switches* in the query name.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
Utility	Electrical Provider of Residence	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	

Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	
Remodeled in Last 10 yrs?	Recent Remodel of Residence	

Categories – All Rooms

The categories-all rooms query must be used when conducting any analyses regarding room lighting. Theses queries will contain the word *room* in the query name. Generally, when using the categories – all rooms query, you **must** select the option of grouping by room.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
Utility	Electrical Provider of Residence	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	
Remodeled in Last 10 yrs?	Recent Remodel of Residence	
Room	Room Type	

LIGHTING OVERVIEW

Tables

Fan Num Bulbs Table

The Fan Num Bulbs table provides the total number of ceiling fans in the home as well as the number of ceiling fans containing 0, 1, 2, 3, 4, 5, 6, 7, and 5+ bulbs.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Number of Fans	Number of Ceiling Fans in the Home	
0 BULBS	Number of Ceiling Fans with 0 Bulbs	
1 BULB	Number of Ceiling Fans with 1 Bulbs	
2 BULBS	Number of Ceiling Fans with 2 Bulbs	
3 BULBS	Number of Ceiling Fans with 3 Bulbs	
4 BULBS	Number of Ceiling Fans with 4 Bulbs	
5 BULBS	Number of Ceiling Fans with 5 Bulbs	
6 BULBS	Number of Ceiling Fans with 6 Bulbs	
7 BULBS	Number of Ceiling Fans with 7 Bulbs	
5+ BULBS	Number of Ceiling Fans with 5+ Bulbs	

Fan Lamp Types Table

The Fan Lamp Types table provides the total number of ceiling fans as well as the number of ceiling fans in the home containing each lamp type.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Number of Fans	Number of Ceiling Fans in the Home	
CF CFU	Number of Ceiling Fans Containing a Compact Fluorescent Unknown Lamp	
CF CI	Number of Ceiling Fans Containing a Compact Fluorescent Integral Lamp	
CF CO	Number of Ceiling Fans Containing a Compact Fluorescent Other Lamp	
CF DK	Number of Ceiling Fans Containing an Unknown Lamp	
CF FC	Number of Ceiling Fans Containing a Fluorescent Circline Lamp	
CF HO	Number of Ceiling Fans Containing a Halogen Other Lamp	
CF IA	Number of Ceiling Fans Containing a Standard Incandescent Lamp	
CF ID	Number of Ceiling Fans Containing an Incandescent Decorative Lamp	
CF IG	Number of Ceiling Fans Containing an Incandescent Globe Lamp	
CF IO	Number of Ceiling Fans Containing an Incandescent Other Lamp	
CF IR	Number of Ceiling Fans Containing an Incandescent Reflector Lamp	
CF IU	Number of Ceiling Fans Containing an Incandescent Unknown Lamp	

Torchiere Lamp Types Table

The Torchiere Lamp Types table provides the total number of torchieres as well as the number of torchieres in the home containing each lamp type.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Number of Torchieres	Number of Torchieres in the Home	
TO CFU	Number of Torchieres Containing a Compact Fluorescent Unknown Lamp	
TO CI	Number of Torchieres Containing a Compact Fluorescent Integral Lamp	
TO CO	Number of Torchieres Containing a Compact Fluorescent Other Lamp	
TO FC	Number of Torchieres Containing a Fluorescent Circline Lamp	

TO HO	Number of Torchieres Containing a Halogen Other Lamp	
TO HT	Number of Torchieres Containing a Halogen Tubular Lamp	
TO IA	Number of Torchieres Containing a Standard Incandescent Lamp	
TO ID	Number of Torchieres Containing an Incandescent Decorative Lamp	
TO IR	Number of Torchieres Containing an Incandescent Reflector Lamp	

Fixtures W CFL Table

The Fixtures W CFL table provides the total number of fixtures containing compact fluorescent lamps as well as number of fixtures containing compact fluorescent lamps by fixture type.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
ROOM	Room Type	
Total Fixtures	Total Number of Fixtures	
Total W CFL	Total Number of Fixtures Containing a Compact Fluorescent Lamp	
AI W CFL	Number of Architecturally Integrated Fixtures Containing a Compact Fluorescent Lamp	
CF W CFL	Number of Ceiling Fans Containing a Compact Fluorescent Lamp	
CH W CFL	Number of Chandeliers/Hanging Fixtures Containing a Compact Fluorescent Lamp	
CM W CFL	Number of Ceiling Mount Fixtures Containing a Compact Fluorescent Lamp	
DK W CFL	Number of Unidentified Fixtures Containing a Compact Fluorescent Lamp	
FL W CFL	Number of Floor Lamps Containing a Compact Fluorescent Lamp	
RC W CFL	Number of Recessed Cans Containing a Compact Fluorescent Lamp	
RO W CFL	Number of Other Recessed Lighting Fixtures Containing a Compact Fluorescent Lamp	
TA W CFL	Number of Table Lamps Containing a Compact Fluorescent Lamp	
TO W CFL	Number of Torchieres Containing a Compact Fluorescent Lamp	
TR W CFL	Number of Track Lighting Fixtures Containing a Compact Fluorescent Lamp	
UC W CFL	Number of Under Counter Fixtures Containing a Compact Fluorescent Lamp	
WM W CFL	Number of Wall Mount Fixtures Containing a Compact Fluorescent Lamp	

Whole House - Num Lamp by Fix Type Table

The Whole House - Num Lamp by Fix Type table provides the total number of lamps by fixture type for the whole house.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Room	="Whole House"	
AI NUM LAMPS	Number of Lamps in Architecturally Integrated Fixture	
CF NUM LAMPS	Number of Lamps in Ceiling Fan Fixture	
CH NUM LAMPS	Number of Lamps in Chandelier/Hanging Fixture	
CM NUM LAMPS	Number of Lamps in Ceiling Mount Fixture	
DK NUM LAMPS	Number of Lamps in Unknown Fixture	
FL NUM LAMPS	Number of Lamps in Floor Lamp Fixture	
GA NUM LAMPS	Number of Lamps in Garage Door Opener Fixture	
OT NUM LAMPS	Number of Lamps in Other Fixture	
RC NUM LAMPS	Number of Lamps in Recessed Can Fixture	
RO NUM LAMPS	Number of Lamps in Other Recessed Lighting Fixture	
TA NUM LAMPS	Number of Lamps in Table Lamp Fixture	
TO NUM LAMPS	Number of Lamps in Torchiere Fixture	
TR NUM LAMPS	Number of Lamps in Track Lighting Fixture	
UC NUM LAMPS	Number of Lamps in Under Counter Fixture	
WM NUM LAMPS	Number of Lamps in Wall Mount Fixture	

Queries

Lighting Overview – Part 1

The Lighting Overview – Part 1 query provides the total average number of fixtures and lamps per home, both by fixture type (lamp type) as well as overall, the percentage of homes containing each fixture type and lamp type, and the distribution of the number of fixtures and lamps per home.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	
allhomes	1 for All Sites with Data Available	Basis
Total Fixtures	Total Number of Fixtures	Calculates Average Number of Fixtures
Total Lamps	Total Number of Lamps	Calculates Average Number l Number of Lamps
FIXTURE AI	Number of Architecturally Integrated Fixtures	Calculates Average Number of Architecturally Integrated Fixtures
FIXTURE CF	Number of Ceiling Fans	Calculates Average Number of Ceiling Fans

FIXTURE CH	Number of Chandeliers/Hanging Fixtures	Calculates Average Number of Chandeliers/Hanging Fixtures
FIXTURE CM	Number of Ceiling Mount Fixtures	Calculates Average Number of Ceiling Mount Fixtures
FIXTURE DK	Number of Unidentified Fixtures	Calculates Average Number of Unidentified Fixtures
FIXTURE FL	Number of Floor Lamps	Calculates Average Number of Floor Lamps
FIXTURE GA	Number of Garage Door Openers	Calculates Average Number of Garage Door Openers
FIXTURE OT	Number of Other Fixtures	Calculates Average Number of Other Fixtures
FIXTURE RC	Number of Recessed Cans	Calculates Average Number of Recessed Cans
FIXTURE RO	Number of Other Recessed Lighting Fixtures	Calculates Average Number of Other Recessed Lighting Fixtures
FIXTURE TA	Number of Table Lamps	Calculates Average Number of Table Lamps
FIXTURE TO	Number of Torchieres	Calculates Average Number of Torchieres
FIXTURE TR	Number of Track Lighting Fixtures	Calculates Average Number of Track Lighting Fixtures
FIXTURE UC	Number of Under Counter Fixtures	Calculates Average Number of Under Counter Fixtures
FIXTURE WM	Number of Wall Mount Fixtures	Calculates Average Number of Wall Mount Fixtures
LAMP CFU	Number of Compact Fluorescent Unknown Lamps	Calculates Average Number of Compact Fluorescent Unknown Lamps
LAMP CG	Number of Compact Fluorescent Globe Lamps	Calculates Average Number of Compact Fluorescent Globe Lamps
LAMP CI	Number of Compact Fluorescent Integral Lamps	Calculates Average Number of Compact Fluorescent Integral Lamps
LAMP CM	Number of Compact Fluorescent Modular Lamps	Calculates Average Number of Compact Fluorescent Modular Lamps
LAMP CO	Number of Compact Fluorescent Other Lamps	Calculates Average Number of Compact Fluorescent Other Lamps
LAMP CR	Number of Compact Fluorescent Reflector Lamps	Calculates Average Number of Compact Fluorescent Reflector Lamps
LAMP CS	Number of Compact Fluorescent Square Lamps	Calculates Average Number of Compact Fluorescent Square Lamps
LAMP DK	Number of Unknown Lamps	Calculates Average Number of Unknown Lamps
LAMP F12	Number of Fluorescent T12 Lamps	Calculates Average Number of

		Fluorescent T12 Lamps
LAMP F8	Number of Fluorescent T8 Lamps	Calculates Average Number of Fluorescent T8 Lamps
LAMP FC	Number of Fluorescent Circline Lamps	Calculates Average Number of Fluorescent Circline Lamps
LAMP FO	Number of Fluorescent Other Lamps	Calculates Average Number of Fluorescent Other Lamps
LAMP FTU	Number of Fluorescent Unknown Lamps	Calculates Average Number of Fluorescent Unknown Lamps
LAMP HO	Number of Halogen Other Lamps	Calculates Average Number of Halogen Other Lamps
LAMP HP	Number of Halogen Parabolic Reflector Lamps	Calculates Average Number of Halogen Parabolic Reflector Lamps
LAMP HT	Number of Halogen Tubular Lamps	Calculates Average Number of Halogen Tubular Lamps
LAMP HU	Number of Halogen Unknown Lamps	Calculates Average Number of Halogen Unknown Lamps
LAMP IA	Number of Incandescent Standard Lamps	Calculates Average Number of Incandescent Standard Lamps
LAMP ID	Number of Incandescent Decorative Lamps	Calculates Average Number of Incandescent Decorative Lamps
LAMP IG	Number of Incandescent Globe Lamps	Calculates Average Number of Incandescent Globe Lamps
LAMP IO	Number of Incandescent Other Lamps	Calculates Average Number of Incandescent Other Lamps
LAMP IR	Number of Incandescent Reflector Lamps	Calculates Average Number of Incandescent Reflector Lamps
LAMP IU	Number of Incandescent Unknown Lamps	Calculates Average Number of Incandescent Unknown Lamps
HAVE FIX AI	Indicator Variable = 1 if site has Architecturally Integrated Fixture	Calculates % of Homes With Architecturally Integrated Fixture
HAVE FIX CF	Indicator Variable = 1 if site has Ceiling Fan Fixture	Calculates % of Homes With Ceiling Fan Fixture
HAVE FIX CH	Indicator Variable = 1 if site has Chandelier/Hanging Fixture	Calculates % of Homes With Chandelier/Hanging Fixture
HAVE FIX CM	Indicator Variable = 1 if site has Ceiling Mount Fixture	Calculates % of Homes With Ceiling Mount Fixture
HAVE FIX DK	Indicator Variable = 1 if site has Unknown Fixture	Calculates % of Homes With Unknown Fixture
HAVE FIX FL	Indicator Variable = 1 if site has Floor Lamp Fixture	Calculates % of Homes With Floor Lamp Fixture
HAVE FIX GA	Indicator Variable = 1 if site has Garage Door Opener Fixture	Calculates % of Homes With Garage Door Opener Fixture
HAVE FIX OT	Indicator Variable = 1 if site has Other Fixture	Calculates % of Homes With Other Fixture
HAVE FIX RC	Indicator Variable = 1 if site has Recessed Can Fixture	Calculates % of Homes With Recessed Can Fixture
HAVE FIX RO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture	Calculates % of Homes With Other Recessed Lighting Fixture

HAVE FIX TA	Indicator Variable = 1 if site has Table Lamp Fixture	Calculates % of Homes With Table Lamp Fixture
HAVE FIX TO	Indicator Variable = 1 if site has Torchiere Fixture	Calculates % of Homes With Torchiere Fixture
HAVE FIX TR	Indicator Variable = 1 if site has Track Lighting Fixture	Calculates % of Homes With Track Lighting Fixture
HAVE FIX UC	Indicator Variable = 1 if site has Under Counter Fixture	Calculates % of Homes With Under Counter Fixture
HAVE FIX WM	Indicator Variable = 1 if site has Wall Mount Fixture	Calculates % of Homes With Wall Mount Fixture
HAVE LAMP CFU	Indicator Variable = 1 if site has Compact Fluorescent Unknown Lamp	Calculates % of Homes With Compact Fluorescent Unknown Lamp
HAVE LAMP CG	Indicator Variable = 1 if site has Compact Fluorescent Globe Lamp	Calculates % of Homes With Compact Fluorescent Globe Lamp
HAVE LAMP CI	Indicator Variable = 1 if site has Compact Fluorescent Integral Lamp	Calculates % of Homes With Compact Fluorescent Integral Lamp
HAVE LAMP CM	Indicator Variable = 1 if site has Compact Fluorescent Modular Lamp	Calculates % of Homes With Compact Fluorescent Modular Lamp
HAVE LAMP CO	Indicator Variable = 1 if site has Compact Fluorescent Other Lamp	Calculates % of Homes With Compact Fluorescent Other Lamp
HAVE LAMP CR	Indicator Variable = 1 if site has Compact Fluorescent Reflector Lamp	Calculates % of Homes With Compact Fluorescent Reflector Lamp
HAVE LAMP CS	Indicator Variable = 1 if site has Compact Fluorescent Square Lamp	Calculates % of Homes With Compact Fluorescent Square Lamp
HAVE LAMP DK	Indicator Variable = 1 if site has Unknown Lamp	Calculates % of Homes With Unknown Lamp
HAVE LAMP F12	Indicator Variable = 1 if site has Fluorescent T12 Lamp	Calculates % of Homes With Fluorescent T12 Lamp
HAVE LAMP F8	Indicator Variable = 1 if site has Fluorescent T8 Lamp	Calculates % of Homes With Fluorescent T8 Lamp
HAVE LAMP FC	Indicator Variable = 1 if site has Fluorescent Circline Lamp	Indicator Variable = 1 if site has Fluorescent Circline Lamp
HAVE LAMP FO	Indicator Variable = 1 if site has Fluorescent Other Lamp	Calculates % of Homes With Fluorescent Other Lamp
HAVE LAMP FTU	Indicator Variable = 1 if site has Fluorescent Unknown Lamp	Calculates % of Homes With Fluorescent Unknown Lamp
HAVE LAMP HO	Indicator Variable = 1 if site has Halogen Other Lamp	Calculates % of Homes With Halogen Other Lamp
HAVE LAMP HP	Indicator Variable = 1 if site has Halogen Parabolic Reflector Lamp	Calculates % of Homes With Halogen Parabolic Reflector Lamp
HAVE LAMP HT	Indicator Variable = 1 if site has Halogen Tubular Lamp	Calculates % of Homes With Halogen Tubular Lamp
HAVE LAMP HU	Indicator Variable = 1 if site has Halogen	Calculates % of Homes With

	Unknown Lamp	Halogen Unknown Lamp
HAVE LAMP IA	Indicator Variable = 1 if site has Incandescent Standard Lamp	Calculates % of Homes With Incandescent Standard Lamp
HAVE LAMP ID	Indicator Variable = 1 if site has Incandescent Decorative Lamp	Calculates % of Homes With Incandescent Decorative Lamp
HAVE LAMP IG	Indicator Variable = 1 if site has Incandescent Globe Lamp	Calculates % of Homes With Incandescent Globe Lamp
HAVE LAMP IO	Indicator Variable = 1 if site has Incandescent Other Lamp	Calculates % of Homes With Incandescent Other Lamp
HAVE LAMP IR	Indicator Variable = 1 if site has Incandescent Reflector Lamp	Calculates % of Homes With Incandescent Reflector Lamp
HAVE LAMP IU	Indicator Variable = 1 if site has Incandescent Unknown Lamp	Calculates % of Homes With Incandescent Unknown Lamp
HAVE 1 - 10 FIXTURES	Indicator Variable = 1 if site has Between 1 – 10 Fixtures	Calculates % of Homes With Between 1 – 10 Fixtures
HAVE 11 – 20 FIXTURES	Indicator Variable = 1 if site has Between 11 – 20 Fixtures	Calculates % of Homes With Between 11 – 20 Fixtures
HAVE 21 – 30 FIXTURES	Indicator Variable = 1 if site has Between 21 – 30 Fixtures	Calculates % of Homes With Between 21 – 30 Fixtures
HAVE 31 – 40 FIXTURES	Indicator Variable = 1 if site has Between 31 – 40 Fixtures	Calculates % of Homes With Between 31 – 40 Fixtures
HAVE 41 – 50 FIXTURES	Indicator Variable = 1 if site has Between 41 – 50 Fixtures	Calculates % of Homes With Between 41 – 50 Fixtures
HAVE 51+ FIXTURES	Indicator Variable = 1 if site has Greater Than 50 Fixtures	Calculates % of Homes With Greater Than 50 Fixtures
HAVE 1 - 10 LAMPS	Indicator Variable = 1 if site has Between 1 – 10 Lamps	Calculates % of Homes With Between 1 – 10 Lamps
HAVE 11 – 20 LAMPS	Indicator Variable = 1 if site has Between 11 – 20 Lamps	Calculates % of Homes With Between 11 – 20 Lamps
HAVE 21 – 30 LAMPS	Indicator Variable = 1 if site has Between 21 – 30 Lamps	Calculates % of Homes With Between 21 – 30 Lamps
HAVE 31 – 40 LAMPS	Indicator Variable = 1 if site has Between 31 – 40 Lamps	Calculates % of Homes With Between 31 – 40 Lamps
HAVE 41 – 50 LAMPS	Indicator Variable = 1 if site has Between 41 – 50 Lamps	Calculates % of Homes With Between 41 – 50 Lamps
HAVE 51+ LAMPS	Indicator Variable = 1 if site has Greater Than 50 Lamps	Calculates % of Homes With Greater Than 50 Lamps

Lighting Overview – Fans

The Lighting Overview – Fans query provides the percentage of ceiling fans with 0, 1, 2, 3, 4, and 5+ lamps.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	
FIXTURE CF	Number of Ceiling Fan Fixtures	Basis
NO BULBS	Number of Ceiling Fan Fixtures with No Bulbs	Calculates % of Ceiling Fan Fixtures with No Bulbs
ONE BULB	Number of Ceiling Fan Fixtures with One	Calculates % of Ceiling Fan

	Bulb	Fixtures with One Bulb
TWO BULBS	Number of Ceiling Fan Fixtures with Two Bulbs	Calculates % of Ceiling Fan Fixtures with Two Bulbs
THREE BULBS	Number of Ceiling Fan Fixtures with Three Bulbs	Calculates % of Ceiling Fan Fixtures with Three Bulbs
FOUR BULBS	Number of Ceiling Fan Fixtures with Four Bulbs	Calculates % of Ceiling Fan Fixtures with Four Bulbs
FIVE+ BULBS	Number of Ceiling Fan Fixtures with Five or More Bulbs	Calculates % of Ceiling Fan Fixtures with Five or More Bulbs

Ceiling Fan % Lamp Types

The Ceiling Fan % Lamp Types query provides the percentage of ceiling fans containing each lamp type.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SiteID2	RLW Site Identification Number	
Number of Fans	Number of Ceiling Fans in the Home	Basis
CF CFU	Number of Ceiling Fans Containing a Compact Fluorescent Unknown Lamp	Calculates % Ceiling Fans Containing a Compact Fluorescent Unknown Lamp
CF CI	Number of Ceiling Fans Containing a Compact Fluorescent Integral Lamp	Calculates % Ceiling Fans Containing a Compact Fluorescent Integral Lamp
CF CO	Number of Ceiling Fans Containing a Compact Fluorescent Other Lamp	Calculates % Ceiling Fans Containing a Compact Fluorescent Other Lamp
CF DK	Number of Ceiling Fans Containing an Unknown Lamp	Calculates % Ceiling Fans Containing an Unknown Lamp
CF FC	Number of Ceiling Fans Containing a Fluorescent Circline Lamp	Calculates % Ceiling Fans Containing a Fluorescent Circline Lamp
CF HO	Number of Ceiling Fans Containing a Halogen Other Lamp	Calculates % Ceiling Fans Containing a Halogen Other Lamp
CF IA	Number of Ceiling Fans Containing a Standard Incandescent Lamp	Calculates % Ceiling Fans Containing a Standard Incandescent Lamp
CF ID	Number of Ceiling Fans Containing an Incandescent Decorative Lamp	Calculates % Ceiling Fans Containing an Incandescent Decorative Lamp
CF IG	Number of Ceiling Fans Containing an Incandescent Globe Lamp	Calculates % Ceiling Fans Containing an Incandescent Globe Lamp
CF IO	Number of Ceiling Fans Containing an Incandescent Other Lamp	Calculates % Ceiling Fans Containing an Incandescent Other Lamp
CF IR	Number of Ceiling Fans Containing an Incandescent Reflector Lamp	Calculates % Ceiling Fans Containing an Incandescent Reflector Lamp

CF IU	Number of Ceiling Fans Containing an Incandescent Unknown Lamp	Calculates % Ceiling Fans Containing an Incandescent Unknown Lamp

Lighting Overview – CFL - SBA

The Lighting Overview - CFL – SBA query requires a separate basis query, SB - Lighting Overview – CFL, to conduct the analysis. This is a special option in MBSS.

The Lighting Overview - CFL – SBA query provides the overall percentage of fixtures containing compact fluorescent lamps as well as the percentage of fixtures containing compact fluorescent lamps by fixture type.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	Sorted Ascending
Total W CFL	Total Number of Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Total Fixtures Containing a Compact Fluorescent Lamp
AI W CFL	Number of Architecturally Integrated Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Architecturally Integrated Fixtures Containing a Compact Fluorescent Lamp
CF W CFL	Number of Ceiling Fans Containing a Compact Fluorescent Lamp	Calculates % of Ceiling Fans Containing a Compact Fluorescent Lamp
CH W CFL	Number of Chandeliers/Hanging Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Chandeliers/Hanging Fixtures Containing a Compact Fluorescent Lamp
CM W CFL	Number of Ceiling Mount Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Ceiling Mount Fixtures Containing a Compact Fluorescent Lamp
DK W CFL	Number of Unidentified Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Unidentified Fixtures Containing a Compact Fluorescent Lamp
FL W CFL	Number of Floor Lamps Containing a Compact Fluorescent Lamp	Calculates % of Floor Lamps Containing a Compact Fluorescent Lamp
RC W CFL	Number of Recessed Cans Containing a Compact Fluorescent Lamp	Calculates % of Recessed Cans Containing a Compact Fluorescent Lamp
RO W CFL	Number of Other Recessed Lighting Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Other Recessed Lighting Fixtures Containing a Compact Fluorescent Lamp
TA W CFL	Number of Table Lamps Containing a Compact Fluorescent Lamp	Calculates % of Table Lamps Containing a Compact Fluorescent Lamp
TO W CFL	Number of Torchieres Containing a Compact Fluorescent Lamp	Calculates % of Torchieres Containing a Compact Fluorescent Lamp

TR W CFL	Number of Track Lighting Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Track Lighting Fixtures Containing a Compact Fluorescent Lamp
UC W CFL	Number of Under Counter Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Under Counter Fixtures Containing a Compact Fluorescent Lamp
WM W CFL	Number of Wall Mount Fixtures Containing a Compact Fluorescent Lamp	Calculates % of Wall Mount Fixtures Containing a Compact Fluorescent Lamp

SB - Lighting Overview – CFL

The SB – Lighting Overview - CFL query provides the separate basis for the query Lighting Overview – CFL - SBA.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	Sorted Ascending
Total W CFL	Total Number of Fixtures	Basis for [Lighting Overview – CFL – SBA].[Total W CFL]
AI W CFL	Number of Architecturally Integrated Fixtures	Basis for [Lighting Overview – CFL – SBA].[AI W CFL]
CF W CFL	Number of Ceiling Fans	Basis for [Lighting Overview – CFL – SBA].[CF W CFL]
CH W CFL	Number of Chandeliers/Hanging Fixtures	Basis for [Lighting Overview – CFL – SBA].[CH W CFL]
CM W CFL	Number of Ceiling Mount Fixtures	Basis for [Lighting Overview – CFL – SBA].[CM W CFL]
DK W CFL	Number of Unidentified Fixtures	Basis for [Lighting Overview – CFL – SBA].[DK W CFL]
FL W CFL	Number of Floor Lamps	Basis for [Lighting Overview – CFL – SBA].[FL W CFL]
RC W CFL	Number of Recessed Cans	Basis for [Lighting Overview – CFL – SBA].[RC W CFL]
RO W CFL	Number of Other Recessed Lighting Fixtures	Basis for [Lighting Overview – CFL – SBA].[RO W CFL]
TA W CFL	Number of Table Lamps	Basis for [Lighting Overview – CFL – SBA].[TA W CFL]
TO W CFL	Number of Torchieres	Basis for [Lighting Overview – CFL – SBA].[TO W CFL]
TR W CFL	Number of Track Lighting Fixtures	Basis for [Lighting Overview – CFL – SBA].[TR W CFL]
UC W CFL	Number of Under Counter Fixtures	Basis for [Lighting Overview – CFL – SBA].[UC W CFL]
WM W CFL	Number of Wall Mount Fixtures	Basis for [Lighting Overview – CFL – SBA].[WM W CFL]

Percent Fixture Type

The percent fixture type query provides the percentage of all fixtures that are a certain type.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	
Total Fixtures	Total Number of Fixtures	Basis
FIXTURE AI	Number of Architecturally Integrated Fixtures	Calculates % Fixtures That Are Architecturally Integrated Fixtures
FIXTURE CF	Number of Ceiling Fans	Calculates % Fixtures That Are Ceiling Fans
FIXTURE CH	Number of Chandeliers/Hanging Fixtures	Calculates % Fixtures That Are Chandeliers/Hanging Fixtures
FIXTURE CM	Number of Ceiling Mount Fixtures	Calculates % Fixtures That Are Ceiling Mount Fixtures
FIXTURE DK	Number of Unidentified Fixtures	Calculates % Fixtures That Are Unidentified Fixtures
FIXTURE FL	Number of Floor Lamps	Calculates % Fixtures That Are Floor Lamps
FIXTURE GA	Number of Garage Door Openers	Calculates % Fixtures That Are Garage Door Openers
FIXTURE OT	Number of Other Fixtures	Calculates % Fixtures That Are Other Fixtures
FIXTURE RC	Number of Recessed Cans	Calculates % Fixtures That Are Recessed Cans
FIXTURE RO	Number of Other Recessed Lighting Fixtures	Calculates % Fixtures That Are Other Recessed Lighting Fixtures
FIXTURE TA	Number of Table Lamps	Calculates % Fixtures That Are Table Lamps
FIXTURE TO	Number of Torchieres	Calculates % Fixtures That Are Torchieres
FIXTURE TR	Number of Track Lighting Fixtures	Calculates % Fixtures That Are Track Lighting Fixtures
FIXTURE UC	Number of Under Counter Fixtures	Calculates % Fixtures That Are Under Counter Fixtures
FIXTURE WM	Number of Wall Mount Fixtures	Calculates % Fixtures That Are Wall Mount Fixtures

Whole House - Ave Num Lamps by Fix Typ - SBA

The Whole House - Ave Num Lamps by Fix Typ - SBA query requires a separate basis query, SB - Whole House - Ave Num Lamps by Fix Typ, to conduct the analysis. This is a special option in MBSS.

The Whole House - Num Lamp by Fix Type table calculates the average number of lamps by fixture type for the whole house.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	Sorted Ascending
AI NUM LAMPS	Number of Lamps in Architecturally Integrated Fixture	Calculates Average Number of Lamps in Architecturally

		Integrated Fixture
CF NUM LAMPS	Number of Lamps in Ceiling Fan Fixture	Calculates Average Number of Lamps in Ceiling Fan Fixture
CH NUM LAMPS	Number of Lamps in Chandelier/Hanging Fixture	Calculates Average Number of Lamps in Chandelier/Hanging Fixture
CM NUM LAMPS	Number of Lamps in Ceiling Mount Fixture	Calculates Average Number of Lamps in Ceiling Mount Fixture
DK NUM LAMPS	Number of Lamps in Unknown Fixture	Calculates Average Number of Lamps in Unknown Fixture
FL NUM LAMPS	Number of Lamps in Floor Lamp Fixture	Calculates Average Number of Lamps in Floor Lamp Fixture
GA NUM LAMPS	Number of Lamps in Garage Door Opener Fixture	Calculates Average Number of Lamps in Garage Door Opener Fixture
OT NUM LAMPS	Number of Lamps in Other Fixture	Calculates Average Number of Lamps in Other Fixture
RC NUM LAMPS	Number of Lamps in Recessed Can Fixture	Calculates Average Number of Lamps in Recessed Can Fixture
RO NUM LAMPS	Number of Lamps in Other Recessed Lighting Fixture	Calculates Average Number of Lamps in Other Recessed Lighting Fixture
TA NUM LAMPS	Number of Lamps in Table Lamp Fixture	Calculates Average Number of Lamps in Table Lamp Fixture
TO NUM LAMPS	Number of Lamps in Torchiere Fixture	Calculates Average Number of Lamps in Torchiere Fixture
TR NUM LAMPS	Number of Lamps in Track Lighting Fixture	Calculates Average Number of Lamps in Track Lighting Fixture
UC NUM LAMPS	Number of Lamps in Under Counter Fixture	Calculates Average Number of Lamps in Under Counter Fixture
WM NUM LAMPS	Number of Lamps in Wall Mount Fixture	Calculates Average Number of Lamps in Wall Mount Fixture

SB - Whole House - Ave Num Lamps by Fix Typ

The SB - Whole House - Ave Num Lamps by Fix Typ query provides the separate basis for the query Whole House - Ave Num Lamps by Fix Typ - SBA.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	Sorted Ascending
AI NUM LAMPS	Number of Architecturally Integrated Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[AI NUM LAMPS]
CF NUM LAMPS	Number of Ceiling Fan Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[CF NUM LAMPS]
CH NUM LAMPS	Number of Chandelier/Hanging Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[CH NUM LAMPS]

CM NUM LAMPS	Number of Ceiling Mount Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[CM NUM LAMPS]
DK NUM LAMPS	Number of Unknown Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[DK NUM LAMPS]
FL NUM LAMPS	Number of Floor Lamp Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[FL NUM LAMPS]
GA NUM LAMPS	Number of Garage Door Opener Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[GA NUM LAMPS]
OT NUM LAMPS	Number of Other Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[OT NUM LAMPS]
RC NUM LAMPS	Number of Recessed Can Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[RC NUM LAMPS]
RO NUM LAMPS	Number of Other Recessed Lighting Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[RO NUM LAMPS]
TA NUM LAMPS	Number of Table Lamp Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[TA NUM LAMPS]
TO NUM LAMPS	Number of Torchiere Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[TO NUM LAMPS]
TR NUM LAMPS	Number of Track Lighting Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[TR NUM LAMPS]
UC NUM LAMPS	Number of Under Counter Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[UC NUM LAMPS]
WM NUM LAMPS	Number of Wall Mount Fixtures	Basis for [Whole House - Ave Num Lamps by Fix Typ - SBA].[WM NUM LAMPS]

Percent Lamp Type

The percent lamp type query provides the percentage of all observed lamps that were of a certain type.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	
Total Lamps	Total Number of Lamps	Basis
LAMP CFU	Number of Compact Fluorescent Unknown Lamps	Calculates % Lamps that were Compact Fluorescent Unknown Lamps
LAMP CG	Number of Compact Fluorescent Globe Lamps	Calculates % Lamps that were Compact Fluorescent Globe

		Lamps
LAMP CI	Number of Compact Fluorescent Integral Lamps	Calculates % Lamps that were Compact Fluorescent Integral Lamps
LAMP CM	Number of Compact Fluorescent Modular Lamps	Calculates % Lamps that were Compact Fluorescent Modular Lamps
LAMP CO	Number of Compact Fluorescent Other Lamps	Calculates % Lamps that were Compact Fluorescent Other Lamps
LAMP CR	Number of Compact Fluorescent Reflector Lamps	Calculates % Lamps that were Compact Fluorescent Reflector Lamps
LAMP CS	Number of Compact Fluorescent Square Lamps	Calculates % Lamps that were Compact Fluorescent Square Lamps
LAMP DK	Number of Unknown Lamps	Calculates % Lamps that were Unknown Lamps
LAMP F12	Number of Fluorescent T12 Lamps	Calculates % Lamps that were Fluorescent T12 Lamps
LAMP F8	Number of Fluorescent T8 Lamps	Calculates % Lamps that were Fluorescent T8 Lamps
LAMP FC	Number of Fluorescent Circline Lamps	Calculates % Lamps that were Fluorescent Circline Lamps
LAMP FO	Number of Fluorescent Other Lamps	Calculates % Lamps that were Fluorescent Other Lamps
LAMP FTU	Number of Fluorescent Unknown Lamps	Calculates % Lamps that were Fluorescent Unknown Lamps
LAMP HO	Number of Halogen Other Lamps	Calculates % Lamps that were Halogen Other Lamps
LAMP HP	Number of Halogen Parabolic Reflector Lamps	Calculates % Lamps that were Halogen Parabolic Reflector Lamps
LAMP HT	Number of Halogen Tubular Lamps	Calculates % Lamps that were Halogen Tubular Lamps
LAMP HU	Number of Halogen Unknown Lamps	Calculates % Lamps that were Halogen Unknown Lamps
LAMP IA	Number of Incandescent Standard Lamps	Calculates % Lamps that were Incandescent Standard Lamps
LAMP ID	Number of Incandescent Decorative Lamps	Calculates % Lamps that were Incandescent Decorative Lamps
LAMP IG	Number of Incandescent Globe Lamps	Calculates % Lamps that were Incandescent Globe Lamps
LAMP IO	Number of Incandescent Other Lamps	Calculates % Lamps that were Incandescent Other Lamps
LAMP IR	Number of Incandescent Reflector Lamps	Calculates % Lamps that were Incandescent Reflector Lamps
LAMP IU	Number of Incandescent Unknown Lamps	Calculates % Lamps that were Incandescent Unknown Lamps

Torchiere % Lamp Types

The Torchiere % Lamp Types query provides the percentage of torchieres containing each lamp type.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SiteID2	RLW Site Identification Number	
num torch	Number of Torchieres in the Home	Basis
TO CFU	Number of Torchieres Containing a Compact Fluorescent Unknown Lamp	Calculates % Torchieres Containing a Compact Fluorescent Unknown Lamp
TO CI	Number of Torchieres Containing a Compact Fluorescent Integral Lamp	Calculates % Torchieres Containing a Compact Fluorescent Integral Lamp
TO CO	Number of Torchieres Containing a Compact Fluorescent Other Lamp	Calculates % Torchieres Containing a Compact Fluorescent Other Lamp
TO FC	Number of Torchieres Containing a Fluorescent Circline Lamp	Calculates % Torchieres Containing a Fluorescent Circline Lamp
TO HO	Number of Torchieres Containing a Halogen Other Lamp	Calculates % Torchieres Containing a Halogen Other Lamp
TO HT	Number of Torchieres Containing a Halogen Tubular Lamp	Calculates % Torchieres Containing a Halogen Tubular Lamp
TO IA	Number of Torchieres Containing a Standard Incandescent Lamp	Calculates % Torchieres Containing a Standard Incandescent Lamp
TO ID	Number of Torchieres Containing an Incandescent Decorative Lamp	Calculates % Torchieres Containing an Incandescent Decorative Lamp
TO IR	Number of Torchieres Containing an Incandescent Reflector Lamp	Calculates % Torchieres Containing an Incandescent Reflector Lamp

Specific Fixture Overview – Homes with Fix in Room

The Specific Fixture Overview – Homes with Fix in Room query calculates the percentage of homes having at least one recessed can. Torchiere, or ceiling fan.

Field Heading	Value	Comments
categories - all rooms.*	All Fields From Categories – all rooms Query	
SITEID2	RLW Site Identification Number	
allhomes	1 for All Sites with Data Available	Basis
HAVE RC	Indicator Variable = 1 if site has Recessed Can Fixture	Calculates % Homes with Recessed Can Fixture
HAVE TO	Indicator Variable = 1 if site has Torchiere Fixture	Calculates % Homes with Torchiere Fixture

HAVE CF	Indicator Variable = 1 if site has Ceiling Fan Fixture	Calculates % Homes with Ceiling Fan Fixture

Specific Fixture Overview – Part 1

The Specific Fixture Overview – Part 1 query provides the percentage of homes having 0, 1 – 4, 5 – 7, 8 – 10, 11 – 20, or 21+ recessed cans, 0, 1, 2, 3, 4, or 5+ torchieres, and 0, 1, 2, 3, 4, 5+ fans. This query also provides the average number of recessed cans, torchieres, and ceiling fans per home.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories – gen Query	
SITEID2	RLW Site Identification Number	
allhomes	1 for All Sites with Data Available	Basis
HAVE Recessed Cans	Indicator Variable = 1 if site has Recessed Can Fixture	Calculates % Homes with Recessed Can Fixture
HAVE 0 Cans	Indicator Variable = 1 if site has 0 Recessed Cans	Calculates % Homes with 0 Recessed Cans
HAVE 1 – 4 Cans	Indicator Variable = 1 if site has 1 – 4 Recessed Cans	Calculates % Homes with 1 – 4 Recessed Cans
HAVE 5 – 7 Cans	Indicator Variable = 1 if site has 5 – 7 Recessed Cans	Calculates % Homes with 5 – 7 Recessed Cans
HAVE 8 – 10 Cans	Indicator Variable = 1 if site has 8 – 10 Recessed Cans	Calculates % Homes with 8 – 10 Recessed Cans
HAVE 11 – 20 Cans	Indicator Variable = 1 if site has 11 – 20 Recessed Cans	Calculates % Homes with 11 – 20 Recessed Cans
HAVE 21+ CANS	Indicator Variable = 1 if site has 21 or Greater Recessed Cans	Calculates % Homes with 21 or Greater Than Recessed Cans
Fixture RC	Number of Recessed Cans	Calculates Average Number of Recessed Cans
HAVE Torchiere	Indicator Variable = 1 if site has Torchiere Fixture	Calculates % Homes with Torchiere Fixture
HAVE 0 Torchieres	Indicator Variable = 1 if site has 0 Torchieres	Calculates % Homes with 0 Torchieres
HAVE 1 Torchire	Indicator Variable = 1 if site has 1 Torchiere	Calculates % Homes with 1 Torchiere
HAVE 2 Torchieres	Indicator Variable = 1 if site has 2 Torchieres	Calculates % Homes with 2 Torchieres
HAVE 3 Torchieres	Indicator Variable = 1 if site has 3 Torchieres	Calculates % Homes with 3 Torchieres
HAVE 4 Torchieres	Indicator Variable = 1 if site has 4 Torchieres	Calculates % Homes with 4 Torchieres
HAVE 5+ Torchieres	Indicator Variable = 1 if site has 5 or More Torchieres	Calculates % Homes with 5 or More Torchieres
Fixture TO	Number of Torchieres	Calculates Average Number of Torchieres
HAVE 0 Fans	Indicator Variable = 1 if site has 0 Ceiling Fans	Calculates % Homes with 0 Ceiling Fans
HAVE 1 Fan	Indicator Variable = 1 if site has 1 Ceiling Fan	Calculates % Homes with 1 Ceiling Fan
HAVE 2 Fans	Indicator Variable = 1 if site has 2 Ceiling	Calculates % Homes with 2

	Fans	Ceiling Fans
HAVE 3 Fans	Indicator Variable = 1 if site has 3 Ceiling Fans	Calculates % Homes with 3 Ceiling Fans
HAVE 4 Fans	Indicator Variable = 1 if site has 4 Ceiling Fans	Calculates % Homes with 4 Ceiling Fans
HAVE 5+ Fans	Indicator Variable = 1 if site has 5 or More Ceiling Fans	Calculates % Homes with 5 or More Ceiling Fans
Fixture CF	Number of Ceiling Fans	Calculates Average Number of Ceiling Fans

PORCH LIGHTING

The porch lighting tables and queries provide the data necessary to analyze porch lighting.

Tables

Porch Lighting Table

The Porch Lighting table provides the total number of porch light fixtures as well as indicator variables indicating whether the site had a particular control type and lamp type combination.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Fixtures	Number of Fixtures on Porch Light	
C – Don't Know	Indicator Variable = 1 if site has Compact Fluorescent Unknown Lamp on Front Porch	
C – Globe	Indicator Variable = 1 if site has Compact Fluorescent Globe Lamp on Front Porch	
C – Integral	Indicator Variable = 1 if site has Compact Fluorescent IntegralLamp on Front Porch	
C – Modular	Indicator Variable = 1 if site has Compact Fluorescent Modular Lamp on Front Porch	
C - Square	Indicator Variable = 1 if site has Compact Fluorescent Square Lamp on Front Porch	
F - Circline	Indicator Variable = 1 if site has Fluorescent Circline Lamp on Front Porch	
F - Other	Indicator Variable = 1 if site has Fluorescent Other Lamp on Front Porch	
F – T12	Indicator Variable = 1 if site has Fluorescent T12 Lamp on Front Porch	
F – Tube - Unknown	Indicator Variable = 1 if site has Fluorescent Tube Unknown Lamp on Front Porch	
H – Other	Indicator Variable = 1 if site has Halogen Other Lamp on Front Porch	
H – Par	Indicator Variable = 1 if site has Halogen Parabolic Reflector Lamp on Front Porch	
H - Tubular	Indicator Variable = 1 if site has Halogen Tubular Lamp on Front Porch	
I – Decorative	Indicator Variable = 1 if site has	

	Incandescent Decorative Lamp on Front Porch	
I – Don't Know	Indicator Variable = 1 if site has Incandescent Unknown Lamp on Front Porch	
I – Globe	Indicator Variable = 1 if site has Incandescent Globe Lamp on Front Porch	
I – Other	Indicator Variable = 1 if site has Incandescent Other Lamp on Front Porch	
I – Reflector	Indicator Variable = 1 if site has Incandescent Reflector Lamp on Front Porch	
I – Standard	Indicator Variable = 1 if site has Incandescent Standard Lamp on Front Porch	
Not Observable	Indicator Variable = 1 if site has Unknown Lamp on Front Porch	
Other	Indicator Variable = 1 if site has Other Lamp on Front Porch	
Manual C – Don't Know	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Unknown Lamp on Front Porch	
Manual C – Globe	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Globe Lamp on Front Porch	
Manual C – Integral	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Integral Lamp on Front Porch	
Manual C – Modular	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Modular Lamp on Front Porch	
Manual C – Square	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Square Lamp on Front Porch	
Manual F - Circline	Indicator Variable = 1 if site has Manual Control Fluorescent Circline Lamp on Front Porch	
Manual F - Other	Indicator Variable = 1 if site has Manual Control Fluorescent Other Lamp on Front Porch	
Manual H - Other	Indicator Variable = 1 if site has Manual Control Halogen Other Lamp on Front Porch	
Manual H - Par	Indicator Variable = 1 if site has Manual Control Halogen Parabolic Reflector Lamp on Front Porch	
Manual I – Decorative	Indicator Variable = 1 if site has Manual Control Incandescent Decorative Lamp on Front Porch	
Manual I – Don't Know	Indicator Variable = 1 if site has Manual Control Incandescent Unknown Lamp on Front Porch	
Manual I – Globe	Indicator Variable = 1 if site has Manual	

	Control Incandescent Globe Lamp on Front Porch	
Manual I – Other	Indicator Variable = 1 if site has Manual Control Incandescent Other Lamp on Front Porch	
Manual I – Reflector	Indicator Variable = 1 if site has Manual Control Incandescent Reflector Lamp on Front Porch	
Manual I – Standard	Indicator Variable = 1 if site has Manual Control Incandescent Standard Lamp on Front Porch	
Manual I – Not Observable	Indicator Variable = 1 if site has Manual Control Not Observable Lamp on Front Porch	
Manual Other	Indicator Variable = 1 if site has Manual Control Other Lamp on Front Porch	
Motion Detector C – Integral	Indicator Variable = 1 if site has Motion Detector Control & Compact Fluorescent Integral Lamp on Front Porch	
Motion Detector F – Other	Indicator Variable = 1 if site has Motion Detector Control & Fluorescent Other Lamp on Front Porch	
Motion Detector H – Par	Indicator Variable = 1 if site has Motion Detector Control & Halogen Parabolic Reflector Lamp on Front Porch	
Motion Detector H – Tubular	Indicator Variable = 1 if site has Motion Detector Control & Halogen Tubular Lamp on Front Porch	
Motion Detector I – Decorative	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Decorative Lamp on Front Porch	
Motion Detector I – Other	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Other Lamp on Front Porch	
Motion Detector I – Reflector	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Reflector Lamp on Front Porch	
Motion Detector I – Standard	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Standard Lamp on Front Porch	
Motion Detector with Photocell C-Modular	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Compact Fluorescent Modular Lamp on Front Porch	
Motion Detector with Photocell C-Square	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Compact Fluorescent Square Lamp on Front Porch	
Motion Detector with Photocell H-Par	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Halogen Parabolic Reflector Lamp on Front Porch	
Motion Detector with Photocell H-Tubular	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Halogen	

	Tubular Lamp on Front Porch	
Motion Detector with Photocell I-Decorative	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Decorative Lamp on Front Porch	
Motion Detector with Photocell I-Other	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Other Lamp on Front Porch	
Motion Detector with Photocell I-Reflector	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Reflector Lamp on Front Porch	
Motion Detector with Photocell I-Standard	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Standard Lamp on Front Porch	
Other C – Integral	Indicator Variable = 1 if site has Other Control & Compact Fluorescent Integral Lamp on Front Porch	
Other C – Modular	Indicator Variable = 1 if site has Other Control & Compact Fluorescent Modular Lamp on Front Porch	
Other F – Circline	Indicator Variable = 1 if site has Other Control & Fluorescent Circline Lamp on Front Porch	
Other F – T12	Indicator Variable = 1 if site has Other Control & Fluorescent T12 Lamp on Front Porch	
Other I – Standard	Indicator Variable = 1 if site has Other Control & Incandescent Standard Lamp on Front Porch	
Other Not Obervable	Indicator Variable = 1 if site has Other Control & Not Observable Lamp on Front Porch	
Photocell C-Integral	Indicator Variable = 1 if site has Photocell Control & Compact Fluorescent Integral Lamp on Front Porch	
Photocell C-Modular	Indicator Variable = 1 if site has Photocell Control & Compact Fluorescent Modular Lamp on Front Porch	
Photocell F-Tube-Unknown	Indicator Variable = 1 if site has Photocell Control & Fluorescent Unknown Lamp on Front Porch	
Photocell I – Decorative	Indicator Variable = 1 if site has Photocell Control & Incandescent Decorative Lamp on Front Porch	
Photocell I – Globe	Indicator Variable = 1 if site has Photocell Control & Incandescent Globe Lamp on Front Porch	
Photocell I – Standard	Indicator Variable = 1 if site has Photocell Control & Incandescent Standard Lamp on Front Porch	
Photocell Not Observable	Indicator Variable = 1 if site has Photocell	

	Control & Not Observable Lamp on Front Porch	
Photocell Other	Indicator Variable = 1 if site has Photocell Control & Other Lamp on Front Porch	
Timer C – Don't Know	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Unknown Lamp on Front Porch	
Timer C – Globe	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Globe Lamp on Front Porch	
Timer C – Integral	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Integral Lamp on Front Porch	
Timer C – Modular	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Modular Lamp on Front Porch	
Timer F – Circline	Indicator Variable = 1 if site has Timer Control & Fluorescent Circline Lamp on Front Porch	
Timer F-Tube-Other	Indicator Variable = 1 if site has Timer Control & Fluorescent Other Lamp on Front Porch	
Timer F-Tube-Unknown	Indicator Variable = 1 if site has Timer Control & Fluorescent Unknown Lamp on Front Porch	
Timer I – Decorative	Indicator Variable = 1 if site has Timer Control & Incandescent Decorative Lamp on Front Porch	
Timer I – Don't Know	Indicator Variable = 1 if site has Timer Control & Incandescent Unknown Lamp on Front Porch	
Timer I – Globe	Indicator Variable = 1 if site has Timer Control & Incandescent Globe Lamp on Front Porch	
Timer I – Standard	Indicator Variable = 1 if site has Timer Control & Incandescent Standard Lamp on Front Porch	
Timer Not Observable	Indicator Variable = 1 if site has Timer Control & Not Observable Lamp on Front Porch	

Porch Lighting – Raw Data Table

The Porch Lighting – Raw Data table provides the control type and lamp type for the porch light as well as the number of fixtures on the porch light switch..

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Controlled By	Control Type for Porch Light	
Lamp Type	Lamp Type for Porch Light	

Num of Fixtures on Switch?	Number of Fixtures on Porch Light Switch	
Control lamp combo	Control Type and Lamp Type for Porch Light	

Queries

Porch - have porch lt

The porch – have porch lt query provides the percentage of homes with a porch light.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	
allporches	1 for All Sites	Basis
have porch lght	Indicator Variable = 1 if site has a porch light	Calculates % Homes with Porch Light

Porch Lighting Analysis

The Porch Lighting analysis query calculates the percentage of homes utilizing a certain lamp type in their front porch light as well as the percentage of home having a particular control type and lamp type combination in the porch light.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories—gen Query	
SITEID2	RLW Site Identification Number	
allporches	1 if site has a Porch Light	Basis
Fixtures	Number of Fixtures on Porch Light	Calculates Average Number of Fixtures on Porch Light
CFU	Indicator Variable = 1 if site has Compact Fluorescent Unknown Lamp on Front Porch	Calculates % Homes with Compact Fluorescent Unknown Lamp on Front Porch
CG	Indicator Variable = 1 if site has Compact Fluorescent Globe Lamp on Front Porch	Calculates % Homes with Compact Fluorescent Globe Lamp on Front Porch
CI	Indicator Variable = 1 if site has Compact Fluorescent IntegralLamp on Front Porch	Calculates % Homes with Compact Fluorescent IntegralLamp on Front Porch
CM	Indicator Variable = 1 if site has Compact Fluorescent Modular Lamp on Front Porch	Calculates % Homes with Compact Fluorescent Modular Lamp on Front Porch
CS	Indicator Variable = 1 if site has Compact Fluorescent Square Lamp on Front Porch	Calculates % Homes with Compact Fluorescent Square Lamp on Front Porch
FC	Indicator Variable = 1 if site has Fluorescent Circline Lamp on Front Porch	Calculates % Homes with Fluorescent Circline Lamp on Front Porch
FO	Indicator Variable = 1 if site has Fluorescent Other Lamp on Front Porch	Calculates % Homes with Fluorescent Other Lamp on Front

		Porch
F12	Indicator Variable = 1 if site has Fluorescent T12 Lamp on Front Porch	Calculates % Homes with Fluorescent T12 Lamp on Front Porch
FTU	Indicator Variable = 1 if site has Fluorescent Tube Unknown Lamp on Front Porch	Calculates % Homes with Fluorescent Tube Unknown Lamp on Front Porch
HO	Indicator Variable = 1 if site has Halogen Other Lamp on Front Porch	Calculates % Homes with Halogen Other Lamp on Front Porch
HP	Indicator Variable = 1 if site has Halogen Parabolic Reflector Lamp on Front Porch	Calculates % Homes with Halogen Parabolic Reflector Lamp on Front Porch
HT	Indicator Variable = 1 if site has Halogen Tubular Lamp on Front Porch	Calculates % Homes with Halogen Tubular Lamp on Front Porch
ID	Indicator Variable = 1 if site has Incandescent Decorative Lamp on Front Porch	Calculates % Homes with Incandescent Decorative Lamp on Front Porch
IU	Indicator Variable = 1 if site has Incandescent Unknown Lamp on Front Porch	Calculates % Homes with Incandescent Unknown Lamp on Front Porch
IG	Indicator Variable = 1 if site has Incandescent Globe Lamp on Front Porch	Calculates % Homes with Incandescent Globe Lamp on Front Porch
IO	Indicator Variable = 1 if site has Incandescent Other Lamp on Front Porch	Calculates % Homes with Incandescent Other Lamp on Front Porch
IR	Indicator Variable = 1 if site has Incandescent Reflector Lamp on Front Porch	Calculates % Homes with Incandescent Reflector Lamp on Front Porch
IA	Indicator Variable = 1 if site has Incandescent Standard Lamp on Front Porch	Calculates % Homes with Incandescent Standard Lamp on Front Porch
DK	Indicator Variable = 1 if site has Unknown Lamp on Front Porch	Calculates % Homes with Unknown Lamp on Front Porch
OT	Indicator Variable = 1 if site has Other Lamp on Front Porch	Calculates % Homes with Other Lamp on Front Porch
Manual cfu	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Unknown Lamp on Front Porch	Calculates % Homes with Manual Control & Compact Fluorescent Unknown Lamp on Front Porch
manual cg	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Globe Lamp on Front Porch	Calculates % Homes with Manual Control & Compact Fluorescent Globe Lamp on Front Porch
manual ci	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Integral Lamp on Front Porch	Calculates % Homes with Manual Control & Compact Fluorescent Integral Lamp on Front Porch
manual cm	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Modular Lamp on Front Porch	Calculates % Homes with Manual Control & Compact Fluorescent Modular Lamp on Front Porch

manual cs	Indicator Variable = 1 if site has Manual Control & Compact Fluorescent Square Lamp on Front Porch	Calculates % Homes with Manual Control & Compact Fluorescent Square Lamp on Front Porch
manual fc	Indicator Variable = 1 if site has Manual Control Fluorescent Circline Lamp on Front Porch	Calculates % Homes with Manual Control Fluorescent Circline Lamp on Front Porch
manual fo	Indicator Variable = 1 if site has Manual Control Fluorescent Other Lamp on Front Porch	Calculates % Homes with Manual Control Fluorescent Other Lamp on Front Porch
manual ho	Indicator Variable = 1 if site has Manual Control Halogen Other Lamp on Front Porch	Calculates % Homes with Manual Control Halogen Other Lamp on Front Porch
manual hp	Indicator Variable = 1 if site has Manual Control Halogen Parabolic Reflector Lamp on Front Porch	Calculates % Homes with Manual Control Halogen Parabolic Reflector Lamp on Front Porch
manual id	Indicator Variable = 1 if site has Manual Control Incandescent Decorative Lamp on Front Porch	Calculates % Homes with Manual Control Incandescent Decorative Lamp on Front Porch
manual iu	Indicator Variable = 1 if site has Manual Control Incandescent Unknown Lamp on Front Porch	Calculates % Homes with Manual Control Incandescent Unknown Lamp on Front Porch
manual ig	Indicator Variable = 1 if site has Manual Control Incandescent Globe Lamp on Front Porch	Calculates % Homes with Manual Control Incandescent Globe Lamp on Front Porch
manual io	Indicator Variable = 1 if site has Manual Control Incandescent Other Lamp on Front Porch	Calculates % Homes with Manual Control Incandescent Other Lamp on Front Porch
manual ir	Indicator Variable = 1 if site has Manual Control Incandescent Reflector Lamp on Front Porch	Calculates % Homes with Manual Control Incandescent Reflector Lamp on Front Porch
manual ia	Indicator Variable = 1 if site has Manual Control Incandescent Standard Lamp on Front Porch	Calculates % Homes with Manual Control Incandescent Standard Lamp on Front Porch
manual dk	Indicator Variable = 1 if site has Manual Control Not Observable Lamp on Front Porch	Calculates % Homes with Manual Control Not Observable Lamp on Front Porch
manual ot	Indicator Variable = 1 if site has Manual Control Other Lamp on Front Porch	Calculates % Homes with Manual Control Other Lamp on Front Porch
motion ci	Indicator Variable = 1 if site has Motion Detector Control & Compact Fluorescent Integral Lamp on Front Porch	Calculates % Homes with Motion Detector Control & Compact Fluorescent Integral Lamp on Front Porch
motion fo	Indicator Variable = 1 if site has Motion Detector Control & Fluorescent Other Lamp on Front Porch	Calculates % Homes with Motion Detector Control & Fluorescent Other Lamp on Front Porch
motion hp	Indicator Variable = 1 if site has Motion Detector Control & Halogen Parabolic Reflector Lamp on Front Porch	Calculates % Homes with Motion Detector Control & Halogen Parabolic Reflector Lamp on Front Porch
motion ht	Indicator Variable = 1 if site has Motion	Calculates % Homes with Motion

	Detector Control & Halogen Tubular Lamp on Front Porch	Detector Control & Halogen Tubular Lamp on Front Porch
motion id	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Decorative Lamp on Front Porch	Calculates % Homes with Motion Detector Control & Incandescent Decorative Lamp on Front Porch
motion io	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Other Lamp on Front Porch	Calculates % Homes with Motion Detector Control & Incandescent Other Lamp on Front Porch
motion ir	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Reflector Lamp on Front Porch	Calculates % Homes with Motion Detector Control & Incandescent Reflector Lamp on Front Porch
motion ia	Indicator Variable = 1 if site has Motion Detector Control & Incandescent Standard Lamp on Front Porch	Calculates % Homes with Motion Detector Control & Incandescent Standard Lamp on Front Porch
motionPC cm	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Compact Fluorescent Modular Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Compact Fluorescent Modular Lamp on Front Porch
motionPC cs	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Compact Fluorescent Square Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Compact Fluorescent Square Lamp on Front Porch
motionPC hp	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Halogen Parabolic Reflector Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Halogen Parabolic Reflector Lamp on Front Porch
motionPC ht	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Halogen Tubular Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Halogen Tubular Lamp on Front Porch
motionPC id	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Decorative Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Incandescent Decorative Lamp on Front Porch
motionPC io	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Other Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Incandescent Other Lamp on Front Porch
motionPC ir	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Reflector Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Incandescent Reflector Lamp on Front Porch
motionPC ia	Indicator Variable = 1 if site has Motion Detector with Photocell Control & Incandescent Standard Lamp on Front Porch	Calculates % Homes with Motion Detector with Photocell Control & Incandescent Standard Lamp on Front Porch
other ci	Indicator Variable = 1 if site has Other Control & Compact Fluorescent Integral Lamp on Front Porch	Calculates % Homes with Other Control & Compact Fluorescent Integral Lamp on Front Porch
other cm	Indicator Variable = 1 if site has Other Control & Compact Fluorescent Modular	Calculates % Homes with Other Control & Compact Fluorescent

	Lamp on Front Porch	Modular Lamp on Front Porch
other fc	Indicator Variable = 1 if site has Other Control & Fluorescent Circline Lamp on Front Porch	Calculates % Homes with Other Control & Fluorescent Circline Lamp on Front Porch
other f12	Indicator Variable = 1 if site has Other Control & Fluorescent T12 Lamp on Front Porch	Calculates % Homes with Other Control & Fluorescent T12 Lamp on Front Porch
other ia	Indicator Variable = 1 if site has Other Control & Incandescent Standard Lamp on Front Porch	Calculates % Homes with Other Control & Incandescent Standard Lamp on Front Porch
other dk	Indicator Variable = 1 if site has Other Control & Not Observable Lamp on Front Porch	Calculates % Homes with Other Control & Not Observable Lamp on Front Porch
Photo ci	Indicator Variable = 1 if site has Photocell Control & Compact Fluorescent Integral Lamp on Front Porch	Calculates % Homes with Photocell Control & Compact Fluorescent Integral Lamp on Front Porch
Photo cm	Indicator Variable = 1 if site has Photocell Control & Compact Fluorescent Modular Lamp on Front Porch	Calculates % Homes with Photocell Control & Compact Fluorescent Modular Lamp on Front Porch
Photo FTU	Indicator Variable = 1 if site has Photocell Control & Fluorescent Unknown Lamp on Front Porch	Calculates % Homes with Photocell Control & Fluorescent Unknown Lamp on Front Porch
Photo id	Indicator Variable = 1 if site has Photocell Control & Incandescent Decorative Lamp on Front Porch	Calculates % Homes with Photocell Control & Incandescent Decorative Lamp on Front Porch
Photo ig	Indicator Variable = 1 if site has Photocell Control & Incandescent Globe Lamp on Front Porch	Calculates % Homes with Photocell Control & Incandescent Globe Lamp on Front Porch
Photo ia	Indicator Variable = 1 if site has Photocell Control & Incandescent Standard Lamp on Front Porch	Calculates % Homes with Photocell Control & Incandescent Standard Lamp on Front Porch
Photo dk	Indicator Variable = 1 if site has Photocell Control & Not Observable Lamp on Front Porch	Calculates % Homes with Photocell Control & Not Observable Lamp on Front Porch
Photo ot	Indicator Variable = 1 if site has Photocell Control & Other Lamp on Front Porch	Calculates % Homes with Photocell Control & Other Lamp on Front Porch
Timer cfu	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Unknown Lamp on Front Porch	Calculates % Homes with Timer Control & Compact Fluorescent Unknown Lamp on Front Porch
Timer cg	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Globe Lamp on Front Porch	Calculates % Homes with Timer Control & Compact Fluorescent Globe Lamp on Front Porch
Timer ci	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Integral Lamp on Front Porch	Calculates % Homes with Timer Control & Compact Fluorescent Integral Lamp on Front Porch
Timer cm	Indicator Variable = 1 if site has Timer Control & Compact Fluorescent Modular Lamp on Front Porch	Calculates % Homes with Timer Control & Compact Fluorescent Modular Lamp on Front Porch

Timer FC	Indicator Variable = 1 if site has Timer Control & Fluorescent Circline Lamp on Front Porch	Calculates % Homes with Timer Control & Fluorescent Circline Lamp on Front Porch
Timer FO	Control & Fluorescent Other Lamp on Front Porch	Control & Fluorescent Other Lamp on Front Porch
Timer ftu	Indicator Variable = 1 if site has Timer Control & Fluorescent Unknown Lamp on Front Porch	Calculates % Homes with Timer Control & Fluorescent Unknown Lamp on Front Porch
Timer id	Indicator Variable = 1 if site has Timer Control & Incandescent Decorative Lamp on Front Porch	Calculates % Homes with Timer Control & Incandescent Decorative Lamp on Front Porch
Timer iu	Indicator Variable = 1 if site has Timer Control & Incandescent Unknown Lamp on Front Porch	Calculates % Homes with Timer Control & Incandescent Unknown Lamp on Front Porch
Timer ig	Indicator Variable = 1 if site has Timer Control & Incandescent Globe Lamp on Front Porch	Calculates % Homes with Timer Control & Incandescent Globe Lamp on Front Porch
Timer ia	Indicator Variable = 1 if site has Timer Control & Incandescent Standard Lamp on Front Porch	Calculates % Homes with Timer Control & Incandescent Standard Lamp on Front Porch
Timer dk	Indicator Variable = 1 if site has Timer Control & Not Observable Lamp on Front Porch	Calculates % Homes with Timer Control & Not Observable Lamp on Front Porch

ROOM LIGHTING

The room lighting tables and queries provide all data used to calculate lighting results by room type. All analysis queries in the room lighting section make use of the categories – all rooms query instead of the categories –gen query.

Tables

Room Lighting – Raw Data Table

The Room Lighting – Raw Data table provides the raw lighting data collected for all room types.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Room Revised	Room Type	
FixtureType Revised	Fixture Type	
Number of Fixtures_N	Number of Fixtures	
LampType Revised	Lamp Type	
Number of Lamps_N	Number of Lamps per Fixture	
TOTAL LAMP IN FIXTURE TYPE	Total Number of Lamps in Fixture Type & Lamp Type	= (Number of Fixtures_N) * (Number of Lamps_N)
FIX-LAMP	Fixture Type and Lamp Type Combination	

ROOMS – FIXTURES - LAMP SUMMARIES Table

The ROOMS - FIXTURES - LAMP SUMMARIES table provides, for each room type including the whole house, the total number of fixtures as well as indicator variables indicating whether the site had a particular fixture type and lamp type combination. Here, the lamp types have been categorized by lamp technology.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
ROOM	Room Type	
Total Fixtures	Total Number of Fixtures	
AI CFL	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Lamp	
AI FT8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	
AI FTO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Other (Non T8) Lamp	
AI HAL	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Lamp	
AI INC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Lamp	
CF CFL	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Lamp	
CF HAL	Indicator Variable = 1 if site has Ceiling Fan Fixture and Halogen Lamp	
CF INC	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Lamp	
CH CFL	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Lamp	
CH FT8	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent T8 Lamp	
CH FTO	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent Other (Non T8) Lamp	
CH HAL	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Lamp	
CH INC	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Lamp	
CM CFL	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Lamp	
CM FT8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	

CM FTO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Other (Non T8) Lamp	
CM HAL	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Lamp	
CM INC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Lamp	
DK CFL	Indicator Variable = 1 if site has Unknown Fixture and Compact Fluorescent Lamp	
DK INC	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Lamp	
FL CFL	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Lamp	
FL FTO	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Other (Non T8) Lamp	
FL HAL	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Lamp	
FL INC	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Lamp	
GA INC	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Lamp	
OT FT8	Indicator Variable = 1 if site has Other Fixture and Fluorescent T8 Lamp	
OT FTO	Indicator Variable = 1 if site has Other Fixture and Fluorescent Other (Non T8) Lamp	
OT HAL	Indicator Variable = 1 if site has Other Fixture and Halogen Lamp	
OT INC	Indicator Variable = 1 if site has Other Fixture and Incandescent Lamp	
RC CFL	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Lamp	
RC FTO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other (Non T8) Lamp	
RC HAL	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Lamp	
RC INC	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Lamp	
RO CFL	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Lamp	
RO FT8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	
RO FTO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Other (Non T8) Lamp	
RO HAL	Indicator Variable = 1 if site has Other	

	Recessed Lighting Fixture and Halogen Lamp	
RO INC	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Lamp	
TA CFL	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Lamp	
TA FTO	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Other (Non T8) Lamp	
TA HAL	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Lamp	
TA INC	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Lamp	
TO CFL	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Lamp	
TO FTO	Indicator Variable = 1 if site has Torchiere Fixture and Fluorescent Other (Non T8) Lamp	
TO HAL	Indicator Variable = 1 if site has Torchiere Fixture and Halogen Lamp	
TO INC	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Lamp	
TR CFL	Indicator Variable = 1 if site has Track Lighting Fixture and Compact Fluorescent Lamp	
TR HAL	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Lamp	
TR INC	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Lamp	
UC FT8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	
UC FTO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other (Non T8) Lamp	
UC HAL	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Lamp	
UC INC	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Lamp	
WM CFL	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Lamp	
WM FT8	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T8 Lamp	
WM FTO	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Other (Non T8) Lamp	
WM HAL	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Lamp	
WM INC	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Lamp	

ROOMS – FIXTURES Table

The ROOMS - FIXTURES table provides, for each room type including the whole house, the total number of fixtures as well as indicator variables indicating whether the site had a particular fixture type and lamp type combination.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
ROOM	Room Type	
Total Fixtures	Total Number of Fixtures	
AI-CM	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Modular Lamp	
AI-F12	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T12 Lamp	
AI-F8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	
AI-FC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Circline Lamp	
AI-FO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Other Lamp	
AI-FTU	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Unknown Lamp	
AI-HO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Other Lamp	
AI-HP	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Parabolic Reflector Lamp	
AI-HT	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Tubular Lamp	
AI-IA	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Standard Lamp	
AI-ID	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Decorative Lamp	
AI-IG	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Globe Lamp	
AI-IO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and	

	Incandescent Other Lamp	
AI-IR	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Reflector Lamp	
AI-IU	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Unknown Lamp	
CF-CFU	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Unknown Lamp	
CF-CI	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Integral Lamp	
CF-CO	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Other Lamp	
CF-DK	Indicator Variable = 1 if site has Ceiling Fan Fixture and Unknown Lamp	
CF-FC	Indicator Variable = 1 if site has Ceiling Fan Fixture and Fluorescent Circline Lamp	
CF-HO	Indicator Variable = 1 if site has Ceiling Fan Fixture and Halogen Other Lamp	
CF-IA	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Standard Lamp	
CF-ID	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Decorative Lamp	
CF-IG	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Globe Lamp	
CF-IO	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Other Lamp	
CF-IR	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Reflector Lamp	
CF-IU	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Unknown Lamp	
CF-NA	Indicator Variable = 1 if site has Ceiling Fan Fixture with No Lamp	
CH-CG	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Globe Lamp	
CH-CI	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Integral Lamp	
CH-CM	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Modular Lamp	
CH-DK	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Unknown Lamp	
CH-F12	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent	

	T12 Lamp	
CH-F8	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent T8 Lamp	
CH-FC	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent Circline Lamp	
CH-HO	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Other Lamp	
CH-HP	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Parabolic Reflector Lamp	
CH-HT	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Tubular Lamp	
CH-HU	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Unknown Lamp	
CH-IA	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Standard Lamp	
CH-ID	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Decorative Lamp	
CH-IG	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Globe Lamp	
CH-IR	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Reflector Lamp	
CH-IU	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Unknown Lamp	
CM-CFU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Unknown Lamp	
CM-CG	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Globe Lamp	
CM-CI	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Integral Lamp	
CM-CM	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Modular Lamp	
CM-CO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Other Lamp	
CM-CR	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent	

	Reflector Lamp	
CM-DK	Indicator Variable = 1 if site has Ceiling Mount Fixture and Unknown Lamp	
CM-F12	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T12 Lamp	
CM-F8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	
CM-FC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Circline Lamp	
CM-FO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Other Lamp	
CM-FTU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Unknown Lamp	
CM-HO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Other Lamp	
CM-HP	I Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Parabolic Reflector Lamp	
CM-HT	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Tubular Lamp	
CM-HU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Unknown Lamp	
CM-IA	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Standard Lamp	
CM-ID	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Decorative Lamp	
CM-IG	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Globe Lamp	
CM-IO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Other Lamp	
CM-IR	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Reflector Lamp	
CM-IU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Unknown Lamp	
CM-NA	Indicator Variable = 1 if site has Ceiling Mount Fixture and No Lamp	
DK-CI	Indicator Variable = 1 if site has Unknown Fixture and Compact Fluorescent Reflector Lamp	
DK-IA	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Standard Lamp	
DK-IO	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Other Lamp	

DK-IU	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Unknown Lamp	
FL-CFU	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Unknown Lamp	
FL-CG	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Globe Lamp	
FL-CI	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Integral Lamp	
FL-CM	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Modular Lamp	
FL-CR	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Reflector Lamp	
FL-FC	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Circline Lamp	
FL-FO	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Other Lamp	
FL-FTU	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Unknown Lamp	
FL-HO	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Other Lamp	
FL-HP	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Parabolic Reflector Lamp	
FL-HT	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Tubular Lamp	
FL-HU	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Unknown Lamp	
FL-IA	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Standard Lamp	
FL-ID	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Decorative Lamp	
FL-IG	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Globe Lamp	
FL-IO	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Other Lamp	
FL-IR	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Reflector Lamp	
FL-IU	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Unknown Lamp	
GA-IA	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Standard Lamp	
GA-ID	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Decorative Lamp	

GA-IG	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Globe Lamp	
GA-IO	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Other Lamp	
OT-F12	Indicator Variable = 1 if site has Other Fixture and Fluorescent T12 Lamp	
OT-F8	Indicator Variable = 1 if site has Other Fixture and Fluorescent T8 Lamp	
OT-FC	Indicator Variable = 1 if site has Other Fixture and Fluorescent Circline Lamp	
OT-FO	Indicator Variable = 1 if site has Other Fixture and Fluorescent Other Lamp	
OT-HO	Indicator Variable = 1 if site has Other Fixture and Halogen Other Lamp	
OT-HT	Indicator Variable = 1 if site has Other Fixture and Halogen Tubular Lamp	
OT-IA	Indicator Variable = 1 if site has Other Fixture and Incandescent Standard Lamp	
OT-ID	Indicator Variable = 1 if site has Other Fixture and Incandescent Decorative Lamp	
OT-IO	Indicator Variable = 1 if site has Other Fixture and Incandescent Other Lamp	
OT-IR	Indicator Variable = 1 if site has Other Fixture and Incandescent Reflector Lamp	
RC-CFU	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Unknown Lamp	
RC-CG	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Globe Lamp	
RC-CI	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Integral Lamp	
RC-CM	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Modular Lamp	
RC-CO	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Other Lamp	
RC-CR	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Reflector Lamp	
RC-FO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other Lamp	
RC-HO	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Other Lamp	
RC-HP	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Parabolic Reflector	

	Lamp	
RC-HU	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Unknown Lamp	
RC-IA	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Standard Lamp	
RC-IG	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Globe Lamp	
RC-IO	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Other Lamp	
RC-IR	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Reflector Lamp	
RC-IU	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Unknown Lamp	
RC-NA	Indicator Variable = 1 if site has Recessed Can Fixture and No Lamp	
RO-CFU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Unknown Lamp	
RO-CI	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Integral Lamp	
RO-CM	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Modular Lamp	
RO-CO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Other Lamp	
RO-F12	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T12 Lamp	
RO-F8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	
RO-FC	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Circline Lamp	
RO-FO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Other Lamp	
RO-FTU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Unknown Lamp	
RO-HO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Other Lamp	
RO-HP	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen	

	Parabolic Reflector Lamp	
RO-IA	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Standard Lamp	
RO-ID	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Decorative Lamp	
RO-IG	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Globe Lamp	
RO-IO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Other Lamp	
RO-IR	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Reflector Lamp	
RO-IU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Unknown Lamp	
TA-CFU	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Unknown Lamp	
TA-CG	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Globe Lamp	
TA-CI	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Integral Lamp	
TA-CM	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Modular Lamp	
TA-CO	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Other Lamp	
TA-CS	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Square Lamp	
TA-FC	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Circline Lamp	
TA-FO	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Other Lamp	
TA-FTU	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Unknown Lamp	
TA-HO	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Other Lamp	
TA-HP	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Parabolic Reflector Lamp	
TA-HT	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Tubular Lamp	

TA-HU	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Unknown Lamp	
TA-IA	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Standard Lamp	
TA-ID	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Decorative Lamp	
TA-IG	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Globe Lamp	
TA-IO	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Other Lamp	
TA-IR	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Reflector Lamp	
TA-IU	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Unknown Lamp	
TO-CFU	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Unknown Lamp	
TO-CI	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Integral Lamp	
TO-CO	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Other Lamp	
TO-FC	Indicator Variable = 1 if site has Torchiere Fixture and Fluorescent Circline Lamp	
TO-HO	Indicator Variable = 1 if site has Torchiere Fixture and Halogen Other Lamp	
TO-HT	Indicator Variable = 1 if site has Torchiere Fixture and Halogen Tubular Lamp	
TO-IA	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Standard Lamp	
TO-ID	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Decorative Lamp	
TO-IR	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Reflective Lamp	
TR-CI	Indicator Variable = 1 if site has Track Lighting Fixture and Compact Fluorescent Integral Lamp	
TR-HO	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Other Lamp	
TR-HP	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Parabolic Reflector Lamp	
TR-IA	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Standard Lamp	
TR-IG	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Globe Lamp	
TR-IO	Indicator Variable = 1 if site has Track	

	Lighting Fixture and Incandescent Other Lamp	
TR-IR	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Reflector Lamp	
UC-DK	Indicator Variable = 1 if site has Under Counter Fixture and Unknown Lamp	
UC-F12	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T12 Lamp	
UC-F8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	
UC-FO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other Lamp	
UC-FTU	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Unknown Lamp	
UC-HO	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Other Lamp	
UC-HP	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Parabolic Reflector Lamp	
UC-HT	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Tubular Lamp	
UC-IA	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Standard Lamp	
UC-IO	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Other Lamp	
WM-CFU	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Unknown Lamp	
WM-CI	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Integral Lamp	
WM-CM	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Modular Lamp	
WM-CR	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Reflector Lamp	
WM-F12	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T12 Lamp	
WM-F8	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T8 Lamp	
WM-FC	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Circline Lamp	
WM-FO	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Other Lamp	
WM-FTU	Indicator Variable = 1 if site has Wall Mount	

	Fixture and Fluorescent Unknown Lamp	
WM-HO	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Other Lamp	
WM-HP	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Parabolic Reflector Lamp	
WM-HT	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Tubular Lamp	
WM-IA	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Standard Lamp	
WM-ID	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Decorative Lamp	
WM-IG	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Globe Lamp	
WM-IO	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Other Lamp	
WM-IR	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Reflector Lamp	
WM-IU	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Unknown Lamp	
WM-NA	Indicator Variable = 1 if site has Wall Mount Fixture and No Lamp	

Rooms – Fixtures & Lamp Totals Table

The Rooms – Fixtures & Lamp Totals table provides the number of fixtures and lamps (whole house as well as by room) as well as the number of a particular fixture type or lamp type.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
ROOM	Room Type	
Total Fixtures	Total Number of Fixtures	
FIXTURE AI	Number of Architecturally Integrated Fixtures	
FIXTURE CF	Number of Ceiling Fans	
FIXTURE CH	Number of Chandeliers/Hanging Fixtures	
FIXTURE CM	Number of Ceiling Mount Fixtures	
FIXTURE DK	Number of Unidentified Fixtures	
FIXTURE FL	Number of Floor Lamps	
FIXTURE GA	Number of Garage Door Openers	
FIXTURE OT	Number of Other Fixtures	
FIXTURE RC	Number of Recessed Cans	
FIXTURE RO	Number of Other Recessed Lighting Fixtures	
FIXTURE TA	Number of Table Lamps	
FIXTURE TO	Number of Torchieres	
FIXTURE TR	Number of Track Lighting Fixtures	
FIXTURE UC	Number of Under Counter Fixtures	
FIXTURE WM	Number of Wall Mount Fixtures	
TOTAL LAMPS	Total Number of Lamps	

LAMP CFU	Number of Compact Fluorescent Unknown Lamps	
LAMP CG	Number of Compact Fluorescent Globe Lamps	
LAMP CI	Number of Compact Fluorescent Integral Lamps	
LAMP CM	Number of Compact Fluorescent Modular Lamps	
LAMP CO	Number of Compact Fluorescent Other Lamps	
LAMP CR	Number of Compact Fluorescent Reflector Lamps	
LAMP CS	Number of Compact Fluorescent Square Lamps	
LAMP DK	Number of Unknown Lamps	
LAMP F12	Number of Fluorescent T12 Lamps	
LAMP F8	Number of Fluorescent T8 Lamps	
LAMP FC	Number of Fluorescent Circline Lamps	
LAMP FO	Number of Fluorescent Other Lamps	
LAMP FTU	Number of Fluorescent Unknown Lamps	
LAMP HO	Number of Halogen Other Lamps	
LAMP HP	Number of Halogen Parabolic Reflector Lamps	
LAMP HT	Number of Halogen Tubular Lamps	
LAMP HU	Number of Halogen Unknown Lamps	
LAMP IA	Number of Incandescent Standard Lamps	
LAMP ID	Number of Incandescent Decorative Lamps	
LAMP IG	Number of Incandescent Globe Lamps	
LAMP IO	Number of Incandescent Other Lamps	
LAMP IR	Number of Incandescent Reflector Lamps	
LAMP IU	Number of Incandescent Unknown Lamps	
LAMP NA	Number of Not Applicable Lamps	

Queries

ALL ROOMS - LAMP SUMMARIES BY FIX TYP

The ALL ROOMS - LAMP SUMMARIES BY FIX TYP query provides, for each room type including the whole house, the average number of fixtures as well as the percentage of homes that had a particular fixture type and lamp type combination. Here, the lamp types have been categorized by lamp technology.

When analyzing the ALL ROOMS - LAMP SUMMARIES BY FIX TYP query, you *must* select the option of grouping by room.

Field Heading	Value	Comments
categories - all rooms.*	All Fields From Categories – all rooms Query	
SiteID2	RLW Site Identification Number	
allhomes	1 for All Sites with Data Available	Basis

Total Fixtures	Total Number of Fixtures	Calculates Average Number of Fixtures
HAVE CFL	Indicator Variable = 1 if site has Compact Fluorescent Lamp	Calculates % Homes with Compact Fluorescent Lamp
HAVE FT8	Indicator Variable = 1 if site has Fluorescent T8 Lamp	Calculates % Homes with Fluorescent T8 Lamp
HAVE FTO	Indicator Variable = 1 if site has Fluorescent Other (Non T8) Lamp	Calculates % Homes with Fluorescent Other (Non T8) Lamp
HAVE HAL	Indicator Variable = 1 if site has Halogen Lamp	Calculates % Homes with Halogen Lamp
HAVE INC	Indicator Variable = 1 if site has Incandescent Lamp	Calculates % Homes with Incandescent Lamp
HAVE AI	Indicator Variable = 1 if site has Architecturally Integrated Fixture	Calculates % Homes with Architecturally Integrated Fixture
AI CFL	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Lamp	Calculates % Homes with Architecturally Integrated Fixture and Compact Fluorescent Lamp
AI FT8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent T8 Lamp
AI FTO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent Other (Non T8) Lamp
AI HAL	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Lamp	Calculates % Homes with Architecturally Integrated Fixture and Halogen Lamp
AI INC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Lamp
HAVE CF	Indicator Variable = 1 if site has Ceiling Fan Fixture	Calculates % Homes with Ceiling Fan Fixture
CF CFL	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Lamp	Calculates % Homes with Ceiling Fan Fixture and Compact Fluorescent Lamp
CF HAL	Indicator Variable = 1 if site has Ceiling Fan Fixture and Halogen Lamp	Calculates % Homes with Ceiling Fan Fixture and Halogen Lamp
CF INC	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Lamp
HAVE CH	Indicator Variable = 1 if site has Chandelier/Hanging Fixture	Calculates % Homes with Chandelier/Hanging Fixture
CH CFL	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Compact Fluorescent Lamp
CH FT8	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent T8 Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Fluorescent T8 Lamp
CH FTO	Indicator Variable = 1 if site has	Calculates % Homes with

	Chandelier/Hanging Fixture and Fluorescent Other (Non T8) Lamp	Chandelier/Hanging Fixture and Fluorescent Other (Non T8) Lamp
CH HAL	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Halogen Lamp
CH INC	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Lamp
HAVE CM	Indicator Variable = 1 if site has Ceiling Mount Fixture	Calculates % Homes with Ceiling Mount Fixture
CM CFL	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Lamp
CM FT8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent T8 Lamp
CM FTO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent Other (Non T8) Lamp
CM HAL	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Lamp	Calculates % Homes with Ceiling Mount Fixture and Halogen Lamp
CM INC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Lamp
HAVE DK	Indicator Variable = 1 if site has Unknown Fixture	Calculates % Homes with Unknown Fixture
DK CFL	Indicator Variable = 1 if site has Unknown Fixture and Compact Fluorescent Lamp	Calculates % Homes with Unknown Fixture and Compact Fluorescent Lamp
DK INC	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Lamp	Calculates % Homes with Unknown Fixture and Incandescent Lamp
HAVE FL	Indicator Variable = 1 if site has Floor Lamp Fixture	Calculates % Homes with Floor Lamp Fixture
FL CFL	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Lamp	Calculates % Homes with Floor Lamp Fixture and Compact Fluorescent Lamp
FL FTO	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Floor Lamp Fixture and Fluorescent Other (Non T8) Lamp
FL HAL	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Lamp	Calculates % Homes with Floor Lamp Fixture and Halogen Lamp
FL INC	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Lamp
HAVE GA	Indicator Variable = 1 if site has Garage Door Opener Fixture	Calculates % Homes with Garage Door Opener Fixture
GA INC	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Lamp	Calculates % Homes with Garage Door Opener Fixture and

		Incandescent Lamp
HAVE OT	Indicator Variable = 1 if site has Other Fixture	Calculates % Homes with Other Fixture
OT FT8	Indicator Variable = 1 if site has Other Fixture and Fluorescent T8 Lamp	Calculates % Homes with Other Fixture and Fluorescent T8 Lamp
OT FTO	Indicator Variable = 1 if site has Other Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Other Fixture and Fluorescent Other (Non T8) Lamp
OT HAL	Indicator Variable = 1 if site has Other Fixture and Halogen Lamp	Calculates % Homes with Other Fixture and Halogen Lamp
OT INC	Indicator Variable = 1 if site has Other Fixture and Incandescent Lamp	Calculates % Homes with Other Fixture and Incandescent Lamp
HAVE RC	Indicator Variable = 1 if site has Recessed Can Fixture	Calculates % Homes with Recessed Can Fixture
RC CFL	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Lamp	Calculates % Homes with Recessed Can Fixture and Compact Fluorescent Lamp
RC FTO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Recessed Can Fixture and Fluorescent Other (Non T8) Lamp
RC HAL	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Lamp	Calculates % Homes with Recessed Can Fixture and Halogen Lamp
RC INC	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Lamp
HAVE RO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture	Calculates % Homes with Other Recessed Lighting Fixture
RO CFL	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Compact Fluorescent Lamp
RO FT8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent T8 Lamp
RO FTO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent Other (Non T8) Lamp
RO HAL	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Halogen Lamp
RO INC	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Lamp
HAVE TA	Indicator Variable = 1 if site has Table Lamp Fixture	Calculates % Homes with Table Lamp Fixture
TA CFL	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Lamp

TA FTO	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Table Lamp Fixture and Fluorescent Other (Non T8) Lamp
TA HAL	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Lamp	Calculates % Homes with Table Lamp Fixture and Halogen Lamp
TA INC	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Lamp
HAVE TO	Indicator Variable = 1 if site has Torchiere Fixture	Calculates % Homes with Torchiere Fixture
TO CFL	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Lamp	Calculates % Homes with Torchiere Fixture and Compact Fluorescent Lamp
TO FTO	Indicator Variable = 1 if site has Torchiere Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Torchiere Fixture and Fluorescent Other (Non T8) Lamp
TO HAL	Indicator Variable = 1 if site has Torchiere Fixture and Halogen Lamp	Calculates % Homes with Torchiere Fixture and Halogen Lamp
TO INC	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Lamp	Calculates % Homes with Torchiere Fixture and Incandescent Lamp
HAVE TR	Indicator Variable = 1 if site has Track Lighting Fixture	Calculates % Homes with Track Lighting Fixture
TR CFL	Indicator Variable = 1 if site has Track Lighting Fixture and Compact Fluorescent Lamp	Calculates % Homes with Track Lighting Fixture and Compact Fluorescent Lamp
TR HAL	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Lamp	Calculates % Homes with Track Lighting Fixture and Halogen Lamp
TR INC	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Lamp	Calculates % Homes with Track Lighting Fixture and Incandescent Lamp
HAVE UC	Indicator Variable = 1 if site has Under Counter Fixture	Calculates % Homes with Under Counter Fixture
UC FT8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent T8 Lamp
UC FTO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent Other (Non T8) Lamp
UC HAL	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Lamp	Calculates % Homes with Under Counter Fixture and Halogen Lamp
UC INC	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Lamp	Calculates % Homes with Under Counter Fixture and Incandescent Lamp
HAVE WM	Indicator Variable = 1 if site has Wall Mount Fixture	Calculates % Homes with Wall Mount Fixture
WM CFL	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Lamp	Calculates % Homes with Wall Mount Fixture and Compact

	Fluorescent Lamp
WM FT8	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T8 Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent T8 Lamp
WM FTO	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent Other (Non T8) Lamp
WM HAL	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Lamp	Calculates % Homes with Wall Mount Fixture and Halogen Lamp
WM INC	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Lamp

ALL ROOMS – Lmp Typ by Fix Typ by Room Typ

NOTE: This analysis related to this query requires substantial time to complete the computations. When running this analysis, be patient and allow for plenty of time for the calculations to complete.

The ALL ROOMS – Lmp Typ by Fix Typ by Room Typ query provides, for each room type including the whole house, the average number of fixtures as well as the percentage of homes having a particular fixture type and lamp type combination.

When analyzing the ALL ROOMS - LAMP SUMMARIES BY FIX TYP query, you *must* select the option of grouping by room.

Field Heading	Value	Comments
categories - all rooms.*	All Fields From Categories – all rooms Query	
SiteID2	RLW Site Identification Number	
allhomes	1 for All Sites with Data Available	Basis
Total Fixtures	Total Number of Fixtures	Calculates Average Number of Fixtures
AI CM	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Architecturally Integrated Fixture and Compact Fluorescent Modular Lamp
AI F12	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T12 Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent T12 Lamp
AI F8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent T8 Lamp
AI FC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Circline Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent Circline Lamp
AI FO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Other Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent Other Lamp

AI FTU	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent Unknown Lamp
AI HO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Other Lamp	Calculates % Homes with Architecturally Integrated Fixture and Halogen Other Lamp
AI HP	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Architecturally Integrated Fixture and Halogen Parabolic Reflector Lamp
AI HT	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Halogen Tubular Lamp	Calculates % Homes with Architecturally Integrated Fixture and Halogen Tubular Lamp
AI IA	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Standard Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Standard Lamp
AI ID	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Decorative Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Decorative Lamp
AI IG	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Globe Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Globe Lamp
AI IO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Other Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Other Lamp
AI IR	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Reflector Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Reflector Lamp
AI IU	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Unknown Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Unknown Lamp
CF CFU	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Unknown Lamp	Calculates % Homes with Ceiling Fan Fixture and Compact Fluorescent Unknown Lamp
CF CI	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Ceiling Fan Fixture and Compact Fluorescent Integral Lamp
CF CO	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Other Lamp	Calculates % Homes with Ceiling Fan Fixture and Compact Fluorescent Other Lamp
CF DK	Indicator Variable = 1 if site has Ceiling Fan Fixture and Unknown Lamp	Calculates % Homes with Ceiling Fan Fixture and Unknown Lamp
CF FC	Indicator Variable = 1 if site has Ceiling Fan Fixture and Fluorescent Circline Lamp	Calculates % Homes with Ceiling Fan Fixture and Fluorescent Circline Lamp
CF HO	Indicator Variable = 1 if site has Ceiling Fan Fixture and Halogen Other Lamp	Calculates % Homes with Ceiling Fan Fixture and Halogen Other Lamp
CF IA	Indicator Variable = 1 if site has Ceiling Fan	Calculates % Homes with Ceiling

	Fixture and Incandescent Standard Lamp	Fan Fixture and Incandescent Standard Lamp
CF ID	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Decorative Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Decorative Lamp
CF IG	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Globe Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Globe Lamp
CF IO	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Other Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Other Lamp
CF IR	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Reflector Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Reflector Lamp
CF IU	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Unknown Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Unknown Lamp
CF NA	Indicator Variable = 1 if site has Ceiling Fan Fixture with No Lamp	Calculates % Homes with Ceiling Fan Fixture with No Lamp
CH CG	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Globe Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Compact Fluorescent Globe Lamp
CH CI	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Compact Fluorescent Integral Lamp
CH CM	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Compact Fluorescent Modular Lamp
CH DK	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Unknown Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Unknown Lamp
CH F12	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent T12 Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Fluorescent T12 Lamp
CH F8	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent T8 Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Fluorescent T8 Lamp
CH FC	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent Circline Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Fluorescent Circline Lamp
CH HO	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Other Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Halogen Other Lamp
CH HP	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Halogen Parabolic Reflector Lamp
CH HT	Indicator Variable = 1 if site has	Calculates % Homes with

	Chandelier/Hanging Fixture and Halogen Tubular Lamp	Chandelier/Hanging Fixture and Halogen Tubular Lamp
CH HU	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Halogen Unknown Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Halogen Unknown Lamp
CH IA	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Standard Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Standard Lamp
CH ID	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Decorative Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Decorative Lamp
CH IG	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Globe Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Globe Lamp
CH IR	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Reflector Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Reflector Lamp
CH IU	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Unknown Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Unknown Lamp
CM CFU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Unknown Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Unknown Lamp
CM CG	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Globe Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Globe Lamp
CM CI	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Integral Lamp
CM CM	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Modular Lamp
CM CO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Other Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Other Lamp
CM CR	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Reflector Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Reflector Lamp
CM DK	Indicator Variable = 1 if site has Ceiling Mount Fixture and Unknown Lamp	Calculates % Homes with Ceiling Mount Fixture and Unknown Lamp
CM F12	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T12 Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent T12 Lamp
CM F8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent T8 Lamp
CM FC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Circline Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent Circline Lamp
CM FO	Indicator Variable = 1 if site has Ceiling	Calculates % Homes with Ceiling

	Mount Fixture and Fluorescent Other Lamp	Mount Fixture and Fluorescent Other Lamp
CM FTU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent Unknown Lamp
CM HO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Other Lamp	Calculates % Homes with Ceiling Mount Fixture and Halogen Other Lamp
CM HP	I Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Parabolic Reflector Lamp	I Calculates % Homes with Ceiling Mount Fixture and Halogen Parabolic Reflector Lamp
CM HT	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Tubular Lamp	Calculates % Homes with Ceiling Mount Fixture and Halogen Tubular Lamp
CM HU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Halogen Unknown Lamp	Calculates % Homes with Ceiling Mount Fixture and Halogen Unknown Lamp
CM IA	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Standard Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Standard Lamp
CM ID	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Decorative Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Decorative Lamp
CM IG	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Globe Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Globe Lamp
CM IO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Other Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Other Lamp
CM IR	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Reflector Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Reflector Lamp
CM IU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Unknown Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Unknown Lamp
CM NA	Indicator Variable = 1 if site has Ceiling Mount Fixture and No Lamp	Calculates % Homes with Ceiling Mount Fixture and No Lamp
DK CI	Indicator Variable = 1 if site has Unknown Fixture and Compact Fluorescent Reflector Lamp	Calculates % Homes with Unknown Fixture and Compact Fluorescent Reflector Lamp
DK IA	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Standard Lamp	Calculates % Homes with Unknown Fixture and Incandescent Standard Lamp
DK IO	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Other Lamp	Calculates % Homes with Unknown Fixture and Incandescent Other Lamp
DK IU	Indicator Variable = 1 if site has Unknown Fixture and Incandescent Unknown Lamp	Calculates % Homes with Unknown Fixture and Incandescent Unknown Lamp
FL CFU	Indicator Variable = 1 if site has Floor Lamp	Calculates % Homes with Floor

	Fixture and Compact Fluorescent Unknown Lamp	Lamp Fixture and Compact Fluorescent Unknown Lamp
FL CG	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Globe Lamp	Calculates % Homes with Floor Lamp Fixture and Compact Fluorescent Globe Lamp
FL CI	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Floor Lamp Fixture and Compact Fluorescent Integral Lamp
FL CM	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Floor Lamp Fixture and Compact Fluorescent Modular Lamp
FL CR	Indicator Variable = 1 if site has Floor Lamp Fixture and Compact Fluorescent Reflector Lamp	Calculates % Homes with Floor Lamp Fixture and Compact Fluorescent Reflector Lamp
FL FC	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Circline Lamp	Calculates % Homes with Floor Lamp Fixture and Fluorescent Circline Lamp
FL FO	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Other Lamp	Calculates % Homes with Floor Lamp Fixture and Fluorescent Other Lamp
FL FTU	Indicator Variable = 1 if site has Floor Lamp Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Floor Lamp Fixture and Fluorescent Unknown Lamp
FL HO	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Other Lamp	Calculates % Homes with Floor Lamp Fixture and Halogen Other Lamp
FL HP	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Floor Lamp Fixture and Halogen Parabolic Reflector Lamp
FL HT	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Tubular Lamp	Calculates % Homes with Floor Lamp Fixture and Halogen Tubular Lamp
FL HU	Indicator Variable = 1 if site has Floor Lamp Fixture and Halogen Unknown Lamp	Calculates % Homes with Floor Lamp Fixture and Halogen Unknown Lamp
FL IA	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Standard Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Standard Lamp
FL ID	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Decorative Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Decorative Lamp
FL IG	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Globe Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Globe Lamp
FL IO	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Other Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Other Lamp
FL IR	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Reflector Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Reflector Lamp
FL IU	Indicator Variable = 1 if site has Floor Lamp	Calculates % Homes with Floor

	Fixture and Incandescent Unknown Lamp	Lamp Fixture and Incandescent Unknown Lamp
GA IA	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Standard Lamp	Calculates % Homes with Garage Door Opener Fixture and Incandescent Standard Lamp
GA ID	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Decorative Lamp	Calculates % Homes with Garage Door Opener Fixture and Incandescent Decorative Lamp
GA IG	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Globe Lamp	Calculates % Homes with Garage Door Opener Fixture and Incandescent Globe Lamp
GA IO	Indicator Variable = 1 if site has Garage Door Opener Fixture and Incandescent Other Lamp	Calculates % Homes with Garage Door Opener Fixture and Incandescent Other Lamp
OT F12	Indicator Variable = 1 if site has Other Fixture and Fluorescent T12 Lamp	Calculates % Homes with Other Fixture and Fluorescent T12 Lamp
OT F8	Indicator Variable = 1 if site has Other Fixture and Fluorescent T8 Lamp	Calculates % Homes with Other Fixture and Fluorescent T8 Lamp
OT FC	Indicator Variable = 1 if site has Other Fixture and Fluorescent Circline Lamp	Calculates % Homes with Other Fixture and Fluorescent Circline Lamp
OT FO	Indicator Variable = 1 if site has Other Fixture and Fluorescent Other Lamp	Calculates % Homes with Other Fixture and Fluorescent Other Lamp
OT HO	Indicator Variable = 1 if site has Other Fixture and Halogen Other Lamp	Calculates % Homes with Other Fixture and Halogen Other Lamp
OT HT	Indicator Variable = 1 if site has Other Fixture and Halogen Tubular Lamp	Calculates % Homes with Other Fixture and Halogen Tubular Lamp
OT IA	Indicator Variable = 1 if site has Other Fixture and Incandescent Standard Lamp	Calculates % Homes with Other Fixture and Incandescent Standard Lamp
OT ID	Indicator Variable = 1 if site has Other Fixture and Incandescent Decorative Lamp	Calculates % Homes with Other Fixture and Incandescent Decorative Lamp
OT IO	Indicator Variable = 1 if site has Other Fixture and Incandescent Other Lamp	Calculates % Homes with Other Fixture and Incandescent Other Lamp
OT IR	Indicator Variable = 1 if site has Other Fixture and Incandescent Reflector Lamp	Calculates % Homes with Other Fixture and Incandescent Reflector Lamp
RC CFU	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Unknown Lamp	Calculates % Homes with Recessed Can Fixture and Compact Fluorescent Unknown Lamp
RC CG	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Globe Lamp	Calculates % Homes with Recessed Can Fixture and Compact Fluorescent Globe Lamp
RC CI	Indicator Variable = 1 if site has Recessed	Calculates % Homes with

	Can Fixture and Compact Fluorescent Integral Lamp	Recessed Can Fixture and Compact Fluorescent Integral Lamp
RC CM	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Recessed Can Fixture and Compact Fluorescent Modular Lamp
RC CO	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Other Lamp	Calculates % Homes with Recessed Can Fixture and Compact Fluorescent Other Lamp
RC CR	Indicator Variable = 1 if site has Recessed Can Fixture and Compact Fluorescent Reflector Lamp	Calculates % Homes with Recessed Can Fixture and Compact Fluorescent Reflector Lamp
RC FO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other Lamp	Calculates % Homes with Recessed Can Fixture and Fluorescent Other Lamp
RC HO	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Other Lamp	Calculates % Homes with Recessed Can Fixture and Halogen Other Lamp
RC HP	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Recessed Can Fixture and Halogen Parabolic Reflector Lamp
RC HU	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Unknown Lamp	Calculates % Homes with Recessed Can Fixture and Halogen Unknown Lamp
RC IA	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Standard Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Standard Lamp
RC IG	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Globe Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Globe Lamp
RC IO	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Other Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Other Lamp
RC IR	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Reflector Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Reflector Lamp
RC IU	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Unknown Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Unknown Lamp
RC NA	Indicator Variable = 1 if site has Recessed Can Fixture and No Lamp	Calculates % Homes with Recessed Can Fixture and No Lamp
RO CFU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Unknown Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Compact Fluorescent Unknown Lamp
RO CI	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact	Calculates % Homes with Other Recessed Lighting Fixture and

	Fluorescent Integral Lamp	Compact Fluorescent Integral Lamp
RO CM	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Compact Fluorescent Modular Lamp
RO CO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Other Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Compact Fluorescent Other Lamp
RO F12	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T12 Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent T12 Lamp
RO F8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent T8 Lamp
RO FC	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Circline Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent Circline Lamp
RO FO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Other Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent Other Lamp
RO FTU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent Unknown Lamp
RO HO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Other Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Halogen Other Lamp
RO HP	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Halogen Parabolic Reflector Lamp
RO IA	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Standard Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Standard Lamp
RO ID	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Decorative Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Decorative Lamp
RO IG	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Globe Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Globe Lamp
RO IO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Other Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Other Lamp
RO IR	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Reflector Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Reflector Lamp
RO IU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Unknown Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Unknown Lamp
TA CFU	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Unknown	Calculates % Homes with Table Lamp Fixture and Compact

	Lamp	Fluorescent Unknown Lamp
TA CG	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Globe Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Globe Lamp
TA CI	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Integral Lamp
TA CM	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Modular Lamp
TA CO	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Other Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Other Lamp
TA CS	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Square Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Square Lamp
TA FC	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Circline Lamp	Calculates % Homes with Table Lamp Fixture and Fluorescent Circline Lamp
TA FO	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Other Lamp	Calculates % Homes with Table Lamp Fixture and Fluorescent Other Lamp
TA FTU	Indicator Variable = 1 if site has Table Lamp Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Table Lamp Fixture and Fluorescent Unknown Lamp
TA HO	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Other Lamp	Calculates % Homes with Table Lamp Fixture and Halogen Other Lamp
TA HP	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Table Lamp Fixture and Halogen Parabolic Reflector Lamp
TA HT	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Tubular Lamp	Calculates % Homes with Table Lamp Fixture and Halogen Tubular Lamp
TA HU	Indicator Variable = 1 if site has Table Lamp Fixture and Halogen Unknown Lamp	Calculates % Homes with Table Lamp Fixture and Halogen Unknown Lamp
TA IA	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Standard Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Standard Lamp
TA ID	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Decorative Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Decorative Lamp
TA IG	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Globe Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Globe Lamp
TA IO	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Other Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Other Lamp
TA IR	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Reflector Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent

		Reflector Lamp
TA IU	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Unknown Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Unknown Lamp
TO CFU	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Unknown Lamp	Calculates % Homes with Torchiere Fixture and Compact Fluorescent Unknown Lamp
TO CI	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Torchiere Fixture and Compact Fluorescent Integral Lamp
TO CO	Indicator Variable = 1 if site has Torchiere Fixture and Compact Fluorescent Other Lamp	Calculates % Homes with Torchiere Fixture and Compact Fluorescent Other Lamp
TO FC	Indicator Variable = 1 if site has Torchiere Fixture and Fluorescent Circline Lamp	Calculates % Homes with Torchiere Fixture and Fluorescent Circline Lamp
TO HO	Indicator Variable = 1 if site has Torchiere Fixture and Halogen Other Lamp	Calculates % Homes with Torchiere Fixture and Halogen Other Lamp
TO HT	Indicator Variable = 1 if site has Torchiere Fixture and Halogen Tubular Lamp	Calculates % Homes with Torchiere Fixture and Halogen Tubular Lamp
TO IA	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Standard Lamp	Calculates % Homes with Torchiere Fixture and Incandescent Standard Lamp
TO ID	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Decorative Lamp	Calculates % Homes with Torchiere Fixture and Incandescent Decorative Lamp
TO IR	Indicator Variable = 1 if site has Torchiere Fixture and Incandescent Reflective Lamp	Calculates % Homes with Torchiere Fixture and Incandescent Reflective Lamp
TR CI	Indicator Variable = 1 if site has Track Lighting Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Track Lighting Fixture and Compact Fluorescent Integral Lamp
TR HO	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Other Lamp	Calculates % Homes with Track Lighting Fixture and Halogen Other Lamp
TR HP	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Track Lighting Fixture and Halogen Parabolic Reflector Lamp
TR IA	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Standard Lamp	Calculates % Homes with Track Lighting Fixture and Incandescent Standard Lamp
TR IG	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Globe Lamp	Calculates % Homes with Track Lighting Fixture and Incandescent Globe Lamp
TR IO	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Other Lamp	Calculates % Homes with Track Lighting Fixture and Incandescent Other Lamp
TR IR	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Reflector	Calculates % Homes with Track Lighting Fixture and

	Lamp	Incandescent Reflector Lamp
UC DK	Indicator Variable = 1 if site has Under Counter Fixture and Unknown Lamp	Calculates % Homes with Under Counter Fixture and Unknown Lamp
UC F12	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T12 Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent T12 Lamp
UC F8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent T8 Lamp
UC FO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent Other Lamp
UC FTU	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent Unknown Lamp
UC HO	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Other Lamp	Calculates % Homes with Under Counter Fixture and Halogen Other Lamp
UC HP	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Under Counter Fixture and Halogen Parabolic Reflector Lamp
UC HT	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Tubular Lamp	Calculates % Homes with Under Counter Fixture and Halogen Tubular Lamp
UC IA	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Standard Lamp	Calculates % Homes with Under Counter Fixture and Incandescent Standard Lamp
UC IO	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Other Lamp	Calculates % Homes with Under Counter Fixture and Incandescent Other Lamp
WM CFU	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Unknown Lamp	Calculates % Homes with Wall Mount Fixture and Compact Fluorescent Unknown Lamp
WM CI	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Wall Mount Fixture and Compact Fluorescent Integral Lamp
WM CM	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Wall Mount Fixture and Compact Fluorescent Modular Lamp
WM CR	Indicator Variable = 1 if site has Wall Mount Fixture and Compact Fluorescent Reflector Lamp	Calculates % Homes with Wall Mount Fixture and Compact Fluorescent Reflector Lamp
WM F12	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T12 Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent T12 Lamp
WM F8	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T8 Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent T8 Lamp
WM FC	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Circline Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent

		Circline Lamp
WM FO	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Other Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent Other Lamp
WM FTU	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent Unknown Lamp
WM HO	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Other Lamp	Calculates % Homes with Wall Mount Fixture and Halogen Other Lamp
WM HP	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Wall Mount Fixture and Halogen Parabolic Reflector Lamp
WM HT	Indicator Variable = 1 if site has Wall Mount Fixture and Halogen Tubular Lamp	Calculates % Homes with Wall Mount Fixture and Halogen Tubular Lamp
WM IA	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Standard Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Standard Lamp
WM ID	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Decorative Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Decorative Lamp
WM IG	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Globe Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Globe Lamp
WM IO	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Other Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Other Lamp
WM IR	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Reflector Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Reflector Lamp
WM IU	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Unknown Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Unknown Lamp
WM NA	Indicator Variable = 1 if site has Wall Mount Fixture and No Lamp	Calculates % Homes with Wall Mount Fixture and No Lamp

Whole House – Lmp Typ by Fix Typ

This query is identical to the ALL ROOMS – Lmp Typ by Fix Typ query with the following exceptions:
1. The appropriate categories query to use is the categories – gen query, *not* the categories – all rooms query.
2. The computations are conducted for the whole house only. This causes the run-time of the query to reduce drastically.

KITCHEN LIGHT USED MOST OFTEN & KITCHEN LIGHT SWITCHES

These tables and queries contain the data regarding the kitchen light used most often as well as the kitchen switches.

Tables

Kitchen Light Switches – Raw Data Table

The Kitchen Light Switches – Raw Data table provides the raw data regarding kitchen light switches, including light switch number, whether or not the switch is dimmable, as well as the number of downlights controlled by each switch..

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Kitchen Lt Switch #	Kitchen Light Switch ID	
Dimmable Switch	Indicator Variable = Yes if Switch is Dimmable	
# of Downlights controlled by switch?	Number of Downlights Controlled By Switch	

Kitchen Light Used Most Often – Raw Data Table

The Kitchen Light Used Most Often – Raw Data regarding the kitchen light used most often. The table includes the fixture type, number of fixtures, lamp type, number of lamps per fixture, as well as the wattage associated with the kitchen light used most often.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
ROOM	Room Type	= Kitchen
Fixture Type	Fixture Type	In Words
Fixture Code	Fixture Type	Abbreviated
NUM OF FIXTURES_N	Number Fixtures	
Lamp Type	Lamp Type	In Words
Lamp Code	Lamp Type	Abbreviated
NUM OF LAMPS_N	Number of Lamps per Fixture	
TOTAL LAMPS	Total Number of Lamps in Fixture Type & Lamp Type	= (Number of Fixtures_N) * (Number of Lamps_N)
FIX-LAMP CODE	Fixture Type and Lamp Type Combination	
WATTAGE OF FIXTURE	Wattage per Fixture	
TOTAL WATTAGE - ALL FIXTURES	Total Wattage in Fixture Type & Lamp Type	= (Number of Fixtures_N) * (WATTAGE OF FIXTURE)
Are there Downlights in Kitchen?	Indicator Variable = Yes if Kitchen has Downlights	
DOWNLIGHT WATTAGE	Typical Wattage of Downlights	

Kitchen Switches Transposed Table

The Kitchen Switches Transposed table provides the total number of switches, the number of dimmable switches, as well as the number of recessed cans controlled per switch.

Field Heading	Value	Comments

SiteID	RLW Site Identification Number	
NUM Switches	Total Number of Kitchen Light Switches	
NUM Dimmable	Number of Dimmable Kitchen Light Switches	
SWITCH 0 CANS	Number of Kitchen Light Switches Controlling 0 Recessed Cans	
SWITCH 1-4 CANS	Number of Kitchen Light Switches Controlling 1 – 4 Recessed Cans	
SWITCH 5-7 CANS	Number of Kitchen Light Switches Controlling 5 –7 Recessed Cans	
SWITCH 8-10 CANS	Number of Kitchen Light Switches Controlling 8 – 10 Recessed Cans	
NUM CAN SWITCHES	Total Number of Kitchen Light Switches Controlling Recessed Cans	
DIM CANS	Number of Dimmable Kitchen Light Switches Controlling Recessed Cans	

Kitchen – Most Often Used – Lamps and Wattages Table

The Kitchen – Most Often Used – Lamps and Wattages table provides the total number of lamps and the total wattage by fixture type for the kitchen light used most often.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
TOTAL LAMPS	Total Number of Lamps	
AI NUM LAMPS	Number of Lamps in Architecturally Integrated Fixture	
CF NUM LAMPS	Number of Lamps in Ceiling Fan Fixture	
CH NUM LAMPS	Number of Lamps in Chandelier/Hanging Fixture	
CM NUM LAMPS	Number of Lamps in Ceiling Mount Fixture	
FL NUM LAMPS	Number of Lamps in Floor Lamp Fixture	
OT NUM LAMPS	Number of Lamps in Other Fixture	
RC NUM LAMPS	Number of Lamps in Recessed Can Fixture	
RO NUM LAMPS	Number of Lamps in Other Recessed Lighting Fixture	
TA NUM LAMPS	Number of Lamps in Table Lamp Fixture	
TR NUM LAMPS	Number of Lamps in Track Lighting Fixture	
UC NUM LAMPS	Number of Lamps in Under Counter Fixture	
WM NUM LAMPS	Number of Lamps in Wall Mount Fixture	
TOTAL WATTAGE	Total Wattage of Kitchen Light Used Most Often	
AI WATTAGE	Wattage in Architecturally Integrated Fixture	
CF WATTAGE	Wattage in Ceiling Fan Fixture	
CH WATTAGE	Wattage in Chandelier/Hanging Fixture	
CM WATTAGE	Wattage in Ceiling Mount Fixture	
FL WATTAGE	Number of Lamps in Floor Lamp Fixture	
OT WATTAGE	Wattage in Other Fixture	

RC WATTAGE	Wattage in Recessed Can Fixture	
RO WATTAGE	Wattage in Other Recessed Lighting Fixture	
TA WATTAGE	Wattage in Table Lamp Fixture	
TR WATTAGE	Wattage in Track Lighting Fixture	
UC WATTAGE	Wattage in Under Counter Fixture	
WM WATTAGE	Wattage in Wall Mount Fixture	

Kitchen - Most Often - Lmp Summary By Fixture Table

The Kitchen - Most Often - Lmp Summary By Fixture table provides the total number of fixtures as well as indicator variables indicating whether the site had a particular fixture type and lamp type combination. Here, the lamp types have been categorized by lamp technology.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Total Fixtures	Total Number of Fixtures	
AI CFL	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Lamp	
AI FT8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	
AI FTO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Other (Non T8) Lamp	
AI INC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Lamp	
CF CFL	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Lamp	
CF HAL	Indicator Variable = 1 if site has Ceiling Fan Fixture and Halogen Lamp	
CF INC	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Lamp	
CH FTO	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent Other (Non T8) Lamp	
CH INC	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Lamp	
CM CFL	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Lamp	
CM FT8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	
CM FTO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Other (Non T8) Lamp	
CM INC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Lamp	

FL INC	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Lamp	
OT FTO	Indicator Variable = 1 if site has Other Fixture and Fluorescent Other (Non T8) Lamp	
OT INC	Indicator Variable = 1 if site has Other Fixture and Incandescent Lamp	
RC FTO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other (Non T8) Lamp	
RC HAL	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Lamp	
RC INC	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Lamp	
RO CFL	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Lamp	
RO FT8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	
RO FTO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Other (Non T8) Lamp	
RO HAL	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Lamp	
RO INC	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Lamp	
TA CFL	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Lamp	
TA INC	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Lamp	
TR HAL	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Lamp	
TR INC	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Lamp	
UC FT8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	
UC FTO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other (Non T8) Lamp	
UC HAL	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Lamp	
UC INC	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Lamp	
WM FTO	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Other (Non T8) Lamp	
WM INC	Indicator Variable = 1 if site has Wall Mount	

	Fixture and Incandescent Lamp	

Kitchen Light – Most Often Used – Fixture Counts Table

The Kitchen Light – Most Often Used – Fixture Counts table provides the total number of fixtures by fixture type as well as indicator variables indicating whether the site had a particular fixture type and lamp type combination.

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Total Fixtures	Total Number of Fixtures	
TOTAL AI	Number of Architecturally Integrated Fixtures	
TOTAL CF	Number of Ceiling Fan Fixtures	
TOTAL CH	Number of Chandelier/Hanging Fixtures	
TOTAL CM	Number of Ceiling Mount Fixtures	
TOTAL FL	Number of Floor Lamp Fixtures	
TOTAL OT	Number of Other Fixtures	
TOTAL RC	Number of Recessed Can Fixtures	
TOTAL RO	Number of Other Recessed Lighting Fixtures	
TOTAL TA	Number of Table Lamp Fixtures	
TOTAL TR	Number of Track Lighting Fixtures	
TOTAL UC	Number of Under Counter Fixtures	
TOTAL WM	Number of Wall Mount Fixtures	
AI CM	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Modular Lamp	
AI F12	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T12 Lamp	
AI F8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	
AI FC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Circline Lamp	
AI IA	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Standard Lamp	
CF CFU	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Unknown Lamp	
CF IA	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Standard Lamp	
CF ID	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Decorative Lamp	
CF IG	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Globe Lamp	
CH DK	Indicator Variable = 1 if site has	

	Chandelier/Hanging Fixture and Unknown Lamp	
CH F12	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent T12 Lamp	
CH-IA	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Standard Lamp	
CH-ID	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Decorative Lamp	
CH-IG	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Globe Lamp	
CM CI	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Integral Lamp	
CM CM	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Modular Lamp	
CM DK	Indicator Variable = 1 if site has Ceiling Mount Fixture and Unknown Lamp	
CM F12	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T12 Lamp	
CM F8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	
CM FC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Circline Lamp	
CM FO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Other Lamp	
CM FTU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Unknown Lamp	
CM IA	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Standard Lamp	
CM ID	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Decorative Lamp	
CM IG	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Globe Lamp	
CM IO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Other Lamp	
CM IR	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Reflector Lamp	
FL IA	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Standard Lamp	

FL IR	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Reflector Lamp	
OT F12	Indicator Variable = 1 if site has Other Fixture and Fluorescent T12 Lamp	
OT IA	Indicator Variable = 1 if site has Other Fixture and Incandescent Standard Lamp	
OT IR	Indicator Variable = 1 if site has Other Fixture and Incandescent Reflector Lamp	
RC FO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other Lamp	
RC HP	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Parabolic Reflector Lamp	
RC IA	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Standard Lamp	
RC IG	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Globe Lamp	
RC IO	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Other Lamp	
RC IR	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Reflector Lamp	
RO CM	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Modular Lamp	
RO F12	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T12 Lamp	
RO F8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	
RO FTU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Unknown Lamp	
RO HP	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Parabolic Reflector Lamp	
RO IA	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Standard Lamp	
RO IG	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Globe Lamp	
RO IR	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Reflector Lamp	
TA CM	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Modular Lamp	

TA IA	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Standard Lamp	
TR HO	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Other Lamp	
TR HP	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Parabolic Reflector Lamp	
TR IA	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Standard Lamp	
TR IR	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Reflector Lamp	
UC F12	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T12 Lamp	
UC F8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	
UC FO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other Lamp	
UC FTU	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Unknown Lamp	
UC HT	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Tubular Lamp	
UC IA	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Standard Lamp	
WM F12	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T12 Lamp	
WM IA	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Standard Lamp	
WM ID	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Decorative Lamp	

Queries

Kitchen Switches – SBA

The Kitchen Switches – SBA query requires a separate basis query, SB - Kitchen Switches, to conduct the analysis. This is a special option in MBSS.

The Kitchen Switches – SBA query provides the average number of kitchen light switches per home, the percentage of switches that are dimmable, as well as the distribution of the number of recessed cans controlled per switch.

Field Heading	Value	Comments
categories-switches.*	All Fields From Categories - switches Query	
SITEID2	RLW Site Identification Number	Sorted Ascending
NUM Switches	Total Number of Kitchen Light Switches	Calculates Average Number of Kitchen Light Switches

DIMMABLE	Number of Dimmable Kitchen Light Switches	Calculates % Switches that are Dimmable
SWITCH 0 CANS	Number of Switches Controlling 0 Recessed Cans	Calculates % Switches Controlling 0 Recessed Cans
SWITCH 1-4 CANS	Number of Switches Controlling 1 – 4 Recessed Cans	Calculates % Switches Controlling 1 – 4 Recessed Cans
SWITCH 5-7 CANS	Number of Switches Controlling 5 – 7 Recessed Cans	Calculates % Switches Controlling 5 – 7 Recessed Cans
SWITCH 8-10 CANS	Number of Switches Controlling 8 – 10 Recessed Cans	Calculates % Switches Controlling 8 – 10 Recessed Cans
DIM CANS	Number of Dimmable Switches Controlling Recessed Cans	Calculates % Switches Controlling Recessed Cans that are Dimmable
HAVE 0 CANS	Indicator Variable = 1 if site has 0 Recessed Cans	Calculates % Homes with 0 Recessed Cans in Kitchen
HAVE 1-4 CANS	Indicator Variable = 1 if site has 1 – 4 Recessed Cans	Calculates % Homes with 1 – 4 Recessed Cans in Kitchen
HAVE 5-7 CANS	Indicator Variable = 1 if site has 5 –7 Recessed Cans	Calculates % Homes with 5 –7 Recessed Cans in Kitchen
HAVE 8-10 CANS	Indicator Variable = 1 if site has 8 – 10 Recessed Cans	Calculates % Homes with 8 – 10 Recessed Cans in Kitchen
HAVE 11+ CANS	Indicator Variable = 1 if site has 11 or More Recessed Cans	Calculates % Homes with 11+ Recessed Cans in Kitchen

SB - Kitchen Switches

The SB - Kitchen Switches query provides the separate basis for the query Kitchen Switches – SBA

Field Heading	Value	Comments
categories-switches.*	All Fields From Categories - switches Query	
SITEID2	RLW Site Identification Number	Sorted Ascending
NUM Switches	1 for All Sites with Data Available	Basis for [Kitchen Switches – SBA].[NUM Switches]
DIMMABLE	Total Number of Kitchen Switches	Basis for [Kitchen Switches – SBA].[DIMMABLE]
SWITCH 0 CANS	Total Number of Kitchen Switches	Basis for [Kitchen Switches – SBA].[SWITCH 0 CANS]
SWITCH 1-4 CANS	Total Number of Kitchen Switches	Basis for [Kitchen Switches – SBA].[SWITCH 1 – 4 CANS]
SWITCH 5-7 CANS	Total Number of Kitchen Switches	Basis for [Kitchen Switches – SBA].[SWITCH 5 – 7 CANS]
SWITCH 8-10 CANS	Total Number of Kitchen Switches	Basis for [Kitchen Switches – SBA].[SWITCH 8 – 10 CANS]
DIM CANS	Number of Switches Controlling Recessed Cans	Basis for [Kitchen Switches – SBA].[DIM CANS]
HAVE 0 CANS	1 for All Sites with Data Available	Basis for [Kitchen Switches – SBA].[HAVE 0 CANS]
HAVE 1-4 CANS	1 for All Sites with Data Available	Basis for [Kitchen Switches – SBA].[HAVE 1 – 4 CANS]
HAVE 5-7 CANS	1 for All Sites with Data Available	Basis for [Kitchen Switches –

		SBA].[HAVE 5 – 7 CANS]
HAVE 8-10 CANS	1 for All Sites with Data Available	Basis for [Kitchen Switches – SBA].[HAVE 8 – 10 CANS]
HAVE 11+ CANS	1 for All Sites with Data Available	Basis for [Kitchen Switches – SBA].[HAVE 11+ CANS]

Kitchen – Most Often – Lmps and Watts - SBA

The Kitchen – Most Often – Lmps and Watts - SBA query requires a separate basis query, SB - Kitchen – Most Often – Lmps and Watts, to conduct the analysis. This is a special option in MBSS.

The Kitchen – Most Often – Lmps and Watts - SBA query calculates the average number of lamps and the averge wattage by fixture type for the kitchen light used most often.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories – gen Query	
SiteID2	RLW Site Identification Number	Sorted Ascending
TOTAL LAMPS	Total Number of Lamps	Calculates Average Number of Lamps
AI NUM LAMPS	Number of Lamps in Architecturally Integrated Fixture	Calculates Average Number of Lamps in Architecturally Integrated Fixture
CF NUM LAMPS	Number of Lamps in Ceiling Fan Fixture	Calculates Average Number of Lamps in Ceiling Fan Fixture
CH NUM LAMPS	Number of Lamps in Chandelier/Hanging Fixture	Calculates Average Number of Lamps in Chandelier/Hanging Fixture
CM NUM LAMPS	Number of Lamps in Ceiling Mount Fixture	Calculates Average Number of Lamps in Ceiling Mount Fixture
FL NUM LAMPS	Number of Lamps in Floor Lamp Fixture	Calculates Average Number of Lamps in Floor Lamp Fixture
OT NUM LAMPS	Number of Lamps in Other Fixture	Calculates Average Number of Lamps in Other Fixture
RC NUM LAMPS	Number of Lamps in Recessed Can Fixture	Calculates Average Number of Lamps in Recessed Can Fixture
RO NUM LAMPS	Number of Lamps in Other Recessed Lighting Fixture	Calculates Average Number of Lamps in Other Recessed Lighting Fixture
TA NUM LAMPS	Number of Lamps in Table Lamp Fixture	Calculates Average Number of Lamps in Table Lamp Fixture
TR NUM LAMPS	Number of Lamps in Track Lighting Fixture	Calculates Average Number of Lamps in Track Lighting Fixture
UC NUM LAMPS	Number of Lamps in Under Counter Fixture	Calculates Average Number of Lamps in Under Counter Fixture
WM NUM LAMPS	Number of Lamps in Wall Mount Fixture	Calculates Average Number of Lamps in Wall Mount Fixture
TOTAL WATTAGE	Total Wattage of Kitchen Light Used Most Often	Calculates Average Wattage of Kitchen Light Used Most Often
AI WATTAGE	Wattage in Architecturally Integrated Fixture	Calculates Average Wattage in

		Architecturally Integrated Fixture
CF WATTAGE	Wattage in Ceiling Fan Fixture	Calculates Average Wattage in Ceiling Fan Fixture
CH WATTAGE	Wattage in Chandelier/Hanging Fixture	Calculates Average Wattage in Chandelier/Hanging Fixture
CM WATTAGE	Wattage in Ceiling Mount Fixture	Calculates Average Wattage in Ceiling Mount Fixture
FL WATTAGE	Wattage in Floor Lamp Fixture	Calculates Average Wattage of Floor Lamp Fixture
OT WATTAGE	Wattage in Other Fixture	Calculates Average Wattage in Other Fixture
RC WATTAGE	Wattage in Recessed Can Fixture	Calculates Average Wattage in Recessed Can Fixture
RO WATTAGE	Wattage in Other Recessed Lighting Fixture	Calculates Average Wattage in Other Recessed Lighting Fixture
TA WATTAGE	Wattage in Table Lamp Fixture	Calculates Average Wattage in Table Lamp Fixture
TR WATTAGE	Wattage in Track Lighting Fixture	Calculates Average Wattage in Track Lighting Fixture
UC WATTAGE	Wattage in Under Counter Fixture	Calculates Average Wattage in Under Counter Fixture
WM WATTAGE	Wattage in Wall Mount Fixture	Calculates Average Wattage in Wall Mount Fixture

SB - Kitchen – Most Often – Lmps and Watts

The SB - Kitchen – Most Often – Lmps and Watts query provides the separate basis for the query Kitchen – Most Often – Lmps and Watts - SBA

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories – gen Query	
SiteID2	RLW Site Identification Number	Sorted Ascending
TOTAL LAMPS	1 for All Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[Total Lamps]
AI NUM LAMPS	Number of Architecturally Integrated Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[AI NUM LAMPS]
CF NUM LAMPS	Number of Ceiling Fan Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[CF NUM LAMPS]
CH NUM LAMPS	Number of Chandelier/Hanging Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[CH NUM LAMPS]
CM NUM LAMPS	Number of Ceiling Mount Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[CM NUM LAMPS]
FL NUM LAMPS	Number of Floor Lamp Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[FL NUM LAMPS]

OT NUM LAMPS	Number of Other Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[OT NUM LAMPS]
RC NUM LAMPS	Number of Recessed Can Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[RC NUM LAMPS]
RO NUM LAMPS	Number of Other Recessed Lighting Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[RO NUM LAMPS]
TA NUM LAMPS	Number of Table Lamp Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[TA NUM LAMPS]
TR NUM LAMPS	Number of Track Lighting Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[TR NUM LAMPS]
UC NUM LAMPS	Number of Under Counter Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[UC NUM LAMPS]
WM NUM LAMPS	Number of Wall Mount Fixtures for Sites with Number of Lamps Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[WM NUM LAMPS]
AI WATTAGE	Number of Architecturally Integrated Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[AI WATTAGE]
CF WATTAGE	Number of Ceiling Fan Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[CF WATTAGE]
CH WATTAGE	Number of Chandelier/Hanging Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[CH WATTAGE]
CM WATTAGE	Number of Ceiling Mount Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[CM WATTAGE]
FL WATTAGE	Number of Floor Lamp Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[FL WATTAGE]
OT WATTAGE	Number of Other Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[OT WATTAGE]
RC WATTAGE	Number of Recessed Can Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[RC WATTAGE]
RO WATTAGE	Number of Other Recessed Lighting Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[RO WATTAGE]
TA WATTAGE	Number of Table Lamp Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[TA WATTAGE]
TR WATTAGE	Number of Track Lighting Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[TR WATTAGE]

UC WATTAGE	Number of Under Counter Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[UC WATTAGE]
WM WATTAGE	Number of Wall Mount Fixtures for Sites with Wattage Available	Basis for [Kitchen – Most Often – Lmps & Watts - SBA].[WM WATTAGE]

Kitchen - Most Often - Lmp Summaries By Fix Type

The Kitchen - Most Often - Lmp Summaries By Fix Type query provides the average number of fixtures as well as the percentage of homes that had a particular fixture type and lamp type combination. Here, the lamp types have been categorized by lamp technology.

Field Heading	Value	Comments
categories -- gen.*	All Fields From Categories – gen Query	
SiteID2	RLW Site Identification Number	
allhomes	1 for All Sites with Data Available	Basis
Total Fixtures	Total Number of Fixtures	Calculates Average Number of Fixtures
HAVE CFL	Indicator Variable = 1 if site has Compact Fluorescent Lamp	Calculates % Homes with Compact Fluorescent Lamp
HAVE FT8	Indicator Variable = 1 if site has Fluorescent T8 Lamp	Calculates % Homes with Fluorescent T8 Lamp
HAVE FTO	Indicator Variable = 1 if site has Fluorescent Other (Non T8) Lamp	Calculates % Homes with Fluorescent Other (Non T8) Lamp
HAVE HAL	Indicator Variable = 1 if site has Halogen Lamp	Calculates % Homes with Halogen Lamp
HAVE INC	Indicator Variable = 1 if site has Incandescent Lamp	Calculates % Homes with Incandescent Lamp
HAVE AI	Indicator Variable = 1 if site has Architecturally Integrated Fixture	Calculates % Homes with Architecturally Integrated Fixture
AI CFL	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Lamp	Calculates % Homes with Architecturally Integrated Fixture and Compact Fluorescent Lamp
AI FT8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent T8 Lamp
AI FTO	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent Other (Non T8) Lamp
AI INC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Lamp
HAVE CF	Indicator Variable = 1 if site has Ceiling Fan Fixture	Calculates % Homes with Ceiling Fan Fixture
CF CFL	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Lamp	Calculates % Homes with Ceiling Fan Fixture and Compact Fluorescent Lamp

CF INC	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Lamp
HAVE CH	Indicator Variable = 1 if site has Chandelier/Hanging Fixture	Calculates % Homes with Chandelier/Hanging Fixture
CH FTO	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Fluorescent Other (Non T8) Lamp
CH INC	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Lamp
HAVE CM	Indicator Variable = 1 if site has Ceiling Mount Fixture	Calculates % Homes with Ceiling Mount Fixture
CM CFL	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Lamp
CM FT8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent T8 Lamp
CM FTO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent Other (Non T8) Lamp
CM INC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Lamp
HAVE FL	Indicator Variable = 1 if site has Floor Lamp Fixture	Calculates % Homes with Floor Lamp Fixture
FL INC	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Lamp
HAVE OT	Indicator Variable = 1 if site has Other Fixture	Calculates % Homes with Other Fixture
OT FTO	Indicator Variable = 1 if site has Other Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Other Fixture and Fluorescent Other (Non T8) Lamp
OT INC	Indicator Variable = 1 if site has Other Fixture and Incandescent Lamp	Calculates % Homes with Other Fixture and Incandescent Lamp
HAVE RC	Indicator Variable = 1 if site has Recessed Can Fixture	Calculates % Homes with Recessed Can Fixture
RC FTO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Recessed Can Fixture and Fluorescent Other (Non T8) Lamp
RC HAL	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Lamp	Calculates % Homes with Recessed Can Fixture and Halogen Lamp
RC INC	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Lamp

HAVE RO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture	Calculates % Homes with Other Recessed Lighting Fixture
RO CFL	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Compact Fluorescent Lamp
RO FT8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent T8 Lamp
RO FTO	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent Other (Non T8) Lamp
RO HAL	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Halogen Lamp
RO INC	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Lamp
HAVE TA	Indicator Variable = 1 if site has Table Lamp Fixture	Calculates % Homes with Table Lamp Fixture
TA CFL	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Lamp
TA INC	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Lamp
HAVE TR	Indicator Variable = 1 if site has Track Lighting Fixture	Calculates % Homes with Track Lighting Fixture
TR HAL	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Lamp	Calculates % Homes with Track Lighting Fixture and Halogen Lamp
TR INC	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Lamp	Calculates % Homes with Track Lighting Fixture and Incandescent Lamp
HAVE UC	Indicator Variable = 1 if site has Under Counter Fixture	Calculates % Homes with Under Counter Fixture
UC FT8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent T8 Lamp
UC FTO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent Other (Non T8) Lamp
UC HAL	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Lamp	Calculates % Homes with Under Counter Fixture and Halogen Lamp
UC INC	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Lamp	Calculates % Homes with Under Counter Fixture and Incandescent Lamp
HAVE WM	Indicator Variable = 1 if site has Wall Mount Fixture	Calculates % Homes with Wall Mount Fixture

WM FTO	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent Other (Non T8) Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent Other (Non T8) Lamp
WM INC	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Lamp

Kitchen Light – Most Often – Lmp Typ by Fix Typ

The Kitchen Light – Most Often – Lmp Typ by Fix Typ query provides the percentage of homes having a particular fixture type and lamp type combination in the kitchen light used most often.

Field Heading	Value	Comments
categories--gen.*	All Fields From Categories – gen Query	
SiteID2	RLW Site Identification Number	
allhomes	1 for All Sites with Data Available	Basis
Total Fixtures	Total Number of Fixtures	Calculates Average Number of Fixtures
AI CM	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Architecturally Integrated Fixture and Compact Fluorescent Modular Lamp
AI F12	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T12 Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent T12 Lamp
AI F8	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent T8 Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent T8 Lamp
AI FC	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Fluorescent Circline Lamp	Calculates % Homes with Architecturally Integrated Fixture and Fluorescent Circline Lamp
AI IA	Indicator Variable = 1 if site has Architecturally Integrated Fixture and Incandescent Standard Lamp	Calculates % Homes with Architecturally Integrated Fixture and Incandescent Standard Lamp
CF CFU	Indicator Variable = 1 if site has Ceiling Fan Fixture and Compact Fluorescent Unknown Lamp	Calculates % Homes with Ceiling Fan Fixture and Compact Fluorescent Unknown Lamp
CF IA	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Standard Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Standard Lamp
CF ID	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Decorative Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Decorative Lamp
CF IG	Indicator Variable = 1 if site has Ceiling Fan Fixture and Incandescent Globe Lamp	Calculates % Homes with Ceiling Fan Fixture and Incandescent Globe Lamp
CH DK	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Unknown Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Unknown Lamp

CH F12	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Fluorescent T12 Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Fluorescent T12 Lamp
CH-IA	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Standard Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Standard Lamp
CH-ID	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Decorative Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Decorative Lamp
CH-IG	Indicator Variable = 1 if site has Chandelier/Hanging Fixture and Incandescent Globe Lamp	Calculates % Homes with Chandelier/Hanging Fixture and Incandescent Globe Lamp
CM CI	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Integral Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Integral Lamp
CM CM	Indicator Variable = 1 if site has Ceiling Mount Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Ceiling Mount Fixture and Compact Fluorescent Modular Lamp
CM DK	Indicator Variable = 1 if site has Ceiling Mount Fixture and Unknown Lamp	Calculates % Homes with Ceiling Mount Fixture and Unknown Lamp
CM F12	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T12 Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent T12 Lamp
CM F8	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent T8 Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent T8 Lamp
CM FC	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Circline Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent Circline Lamp
CM FO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Other Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent Other Lamp
CM FTU	Indicator Variable = 1 if site has Ceiling Mount Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Ceiling Mount Fixture and Fluorescent Unknown Lamp
CM IA	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Standard Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Standard Lamp
CM ID	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Decorative Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Decorative Lamp
CM IG	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Globe Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Globe Lamp
CM IO	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Other Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Other Lamp
CM IR	Indicator Variable = 1 if site has Ceiling Mount Fixture and Incandescent Reflector Lamp	Calculates % Homes with Ceiling Mount Fixture and Incandescent Reflector Lamp

FL IA	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Standard Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Standard Lamp
FL IR	Indicator Variable = 1 if site has Floor Lamp Fixture and Incandescent Reflector Lamp	Calculates % Homes with Floor Lamp Fixture and Incandescent Reflector Lamp
OT F12	Indicator Variable = 1 if site has Other Fixture and Fluorescent T12 Lamp	Calculates % Homes with Other Fixture and Fluorescent T12 Lamp
OT IA	Indicator Variable = 1 if site has Other Fixture and Incandescent Standard Lamp	Calculates % Homes with Other Fixture and Incandescent Standard Lamp
OT IR	Indicator Variable = 1 if site has Other Fixture and Incandescent Reflector Lamp	Calculates % Homes with Other Fixture and Incandescent Reflector Lamp
RC FO	Indicator Variable = 1 if site has Recessed Can Fixture and Fluorescent Other Lamp	Calculates % Homes with Recessed Can Fixture and Fluorescent Other Lamp
RC HP	Indicator Variable = 1 if site has Recessed Can Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Recessed Can Fixture and Halogen Parabolic Reflector Lamp
RC IA	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Standard Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Standard Lamp
RC IG	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Globe Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Globe Lamp
RC IO	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Other Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Other Lamp
RC IR	Indicator Variable = 1 if site has Recessed Can Fixture and Incandescent Reflector Lamp	Calculates % Homes with Recessed Can Fixture and Incandescent Reflector Lamp
RO CM	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Compact Fluorescent Modular Lamp
RO F12	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T12 Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent T12 Lamp
RO F8	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent T8 Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent T8 Lamp
RO FTU	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Fluorescent Unknown Lamp
RO HP	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Halogen Parabolic Reflector Lamp

RO IA	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Standard Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Standard Lamp
RO IG	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Globe Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Globe Lamp
RO IR	Indicator Variable = 1 if site has Other Recessed Lighting Fixture and Incandescent Reflector Lamp	Calculates % Homes with Other Recessed Lighting Fixture and Incandescent Reflector Lamp
TA CM	Indicator Variable = 1 if site has Table Lamp Fixture and Compact Fluorescent Modular Lamp	Calculates % Homes with Table Lamp Fixture and Compact Fluorescent Modular Lamp
TA IA	Indicator Variable = 1 if site has Table Lamp Fixture and Incandescent Standard Lamp	Calculates % Homes with Table Lamp Fixture and Incandescent Standard Lamp
TR HO	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Other Lamp	Calculates % Homes with Track Lighting Fixture and Halogen Other Lamp
TR HP	Indicator Variable = 1 if site has Track Lighting Fixture and Halogen Parabolic Reflector Lamp	Calculates % Homes with Track Lighting Fixture and Halogen Parabolic Reflector Lamp
TR IA	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Standard Lamp	Calculates % Homes with Track Lighting Fixture and Incandescent Standard Lamp
TR IR	Indicator Variable = 1 if site has Track Lighting Fixture and Incandescent Reflector Lamp	Calculates % Homes with Track Lighting Fixture and Incandescent Reflector Lamp
UC F12	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T12 Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent T12 Lamp
UC F8	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent T8 Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent T8 Lamp
UC FO	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Other Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent Other Lamp
UC FTU	Indicator Variable = 1 if site has Under Counter Fixture and Fluorescent Unknown Lamp	Calculates % Homes with Under Counter Fixture and Fluorescent Unknown Lamp
UC HT	Indicator Variable = 1 if site has Under Counter Fixture and Halogen Tubular Lamp	Calculates % Homes with Under Counter Fixture and Halogen Tubular Lamp
UC IA	Indicator Variable = 1 if site has Under Counter Fixture and Incandescent Standard Lamp	Calculates % Homes with Under Counter Fixture and Incandescent Standard Lamp
WM F12	Indicator Variable = 1 if site has Wall Mount Fixture and Fluorescent T12 Lamp	Calculates % Homes with Wall Mount Fixture and Fluorescent T12 Lamp
WM IA	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Standard Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Standard Lamp

WM ID	Indicator Variable = 1 if site has Wall Mount Fixture and Incandescent Decorative Lamp	Calculates % Homes with Wall Mount Fixture and Incandescent Decorative Lamp

Appliance Data Tables and Queries

GENERAL INFORMATION

Tables

General Information Table

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
Type of Residence	Single Family Home, Apartment, etc.	
Residence-Other	Residence type not on data collection list	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
People Under 1 year	Total Number of People Under 1 Year at Site	
People 2 to 5 years	Total Number of People between 2 to 5 years at site	
People 6 to 18 years	Total Number of People between 6 to 18 years at site	
People 18 to 29 years	Total Number of People between 18 to 29 years at site	
People 30 to 49 years	Total Number of People between 30 to 49 years at site	
People 50 to 64 years	Total Number of People between 50 to 64 years at site	
People 65 or more years	Total Number of People over 65 years at site	
Primary Language	Primary Language Spoken at Household	
Primary Language-Other	Primary Language not on data collection list	
Total Household Income	Annual Household Income Range	Resident Supplied
Year Built	Estimated Year Built	
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Remodeled in Last 10 yrs?	Recent Remodel of Residence	
If yes-what was remodeled?	Type of Remodeling at Residence	Cosmetic, Lighting, Appliances
If lighting remodeled-which rooms?	Rooms in which lighting was remodeled in last 10 years	
Plan to Remodel in next 2 yrs?	Future Remodel Status of Residence	
If yes-what will be remodeled?	Future Type of Remodeling at Residence	Cosmetic, Lighting, Appliances
Programmable thermostat?	Programmable Thermostat present at site	
Rent or Own	Ownership Status of Residence	
Who Pays Electric? (Occ or Landlord)	Responsibility for Electric Bill	
Who Pays Gas?	Responsibility for Gas Bill	
Refrigerator owner?	Owner of Refrigerator	

Washing Machine owner?	Owner of Washing Machine	
Dryer owner?	Owner of Dryer	
Air Conditioner owner?	Owner of Air Conditioner	
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Audit Date	Estimated Date of On Site survey	
Audit Team	Audit team that completed survey	RLW or ASW
Comments	Any additional comments about the residence that the auditor observed	i.e. reasons why some appliances were not observable or any challenges encountered at the site

Queries

Categories- -Gen

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	
Remodeled in Last 10 yrs?	Recent Remodel of Residence	

CLOTHES WASHERS

Tables

Washing Machine Table

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Washing Machine #		
Type of Washer	Standard or Horizontal Axis	
Age of Machine (in years old)	Age from model number match	
Age of Machine	Resident reported age	
Manufacturer	Manufacturer from on-site	
Model Number	Model Number as recorded from On-site	
Model_Clean	Model Number with non alphanumerics removed	Used for model number to database matching

Type	Numeric Code for Washer Type	
Energy Factor	Energy Factor [cubic feet/kWh]	
Water Factor	Gallon capacity over cubic feet	Not Used
Moisture Content	Remaining water content from CEC_ckwa.dbf database	Not Used
Source	Database from which washer data was extracted	
Age estimate	Resident reported age from on-site	

Queries

All of the following washing machine queries should be analyzed using the 'Categories--Gen' query.

Gen Washing Machine Age Avg and Bins

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Washing Machine.SiteID	RLW Site Identification Number	
Basis	1–site has washer , 0-no washer	Basis
Age	Years old	Calculates average age of washing machines
age 1995-2000	1 if within range, 0 if not	Calculates % of washers purchased between 1995 and 2000
age 1990-1994	1 if within range, 0 if not	Calculates % of washers purchased between 1990 and 1994
age 1985-1989	1 if within range, 0 if not	Calculates % of washers purchased between 1985 and 1989
age 1980-1984	1 if within range, 0 if not	Calculates % of washers purchased between 1980 and 1984
age 1975-1979	1 if within range, 0 if not	Calculates % of washers purchased between 1975 and 1979
1974 and Older	1 if within range, 0 if not	Calculates % of washers purchased before 1975

Gen Washing Machine Avg EF-Horizontal

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Washing Machine.SiteID	RLW Site Identification Number	
Total_People	Total Number of People in Household if Household Possesses Horizontal Axis Washer, else 0	Basis The energy factor is a ratio and a ratio can not simply be averaged. Thus, the total number of people was used as a weighting factor for washing machines. The number of people in the household was treated as a proxy for how much weight that washing machine's energy factor should have on the average energy factor of the population.

Energy_Factor	Energy Factor of Washer	[Cubic feet/kWh] Calculates the average energy factor for horizontal axis washing machines

Gen Washing Machine Avg EF-Standard

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Washing Machine.SiteID	RLW Site Identification Number	
Total_People	Total Number of People in Household if Household Possesses Top Loading Washer, else 0	Basis
Energy_Factor	Energy Factor of Washer	[Cubic feet/kWh] Calculates the average energy factor for standard washing machines

Gen Washing Machine EF Bins

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Washing Machine.SiteID	RLW Site Identification Number	
basis	1–site has washer , 0-no washer	Basis
EF 1_1-1_2	1 if within range, 0 if not	Calculates % of washers with energy factors between 1.1 and 1.2
EF 1_21-1_3	1 if within range, 0 if not	Calculates % of washers with energy factors between 1.21 and 1.3
EF 1_31-1_4	1 if within range, 0 if not	Calculates % of washers with energy factors between 1.31 and 1.4
EF 1_41-1_5	1 if within range, 0 if not	Calculates % of washers with energy factors between 1.41 and 1.5
EF 1_51-1_6	1 if within range, 0 if not	Calculates % of washers with energy factors between 1.51 and 1.6
EF 3_9-4_0	1 if within range, 0 if not	Calculates % of washers with energy factors between 3.9 and 4.0
EF 4_01-4_1	1 if within range, 0 if not	Calculates % of washers with energy factors between 4.01 and 4.1

Gen Washing Machine Homes with Washing Machine

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Washing Machine.SiteID	RLW Site Identification Number	
All sites	1 for all sites	basis
Washing machine	1–site has washer , 0-no washer	Calculates % of Homes with washing machine

Gen Washing Machine Type of Washer

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Washing Machine.SiteID	RLW Site Identification Number	
Basis	1 for all sites with washing machine	Basis
Horizontal	1 for all sites with horizontal axis washing machine	Calculates % of Horizontal Axis Washers
Standard	1 for all sites with standard washing machine	Calculates % of Standard Washers

CLOTHES DRYERS

Tables

Clothes Dryer Table

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Dryer #	1=primary, 2=secondary	Code for primary, secondary dryer
Age of Machine (in years old)	Resident reported age from on-site	
Fuel Type	Natural Gas. Propane, or Electric	
Manufacturer	Manufacturer from on-site	
Model Number	Model number from on-site	
Model_Clean	Model with nonalphanumerics removed	Not Used

Queries

All of the following clothes dryer queries should be analyzed using the 'Categories--Gen' query.

Clothes Dryer Age Avg and Bins-Estimate

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Clothes Dryer.SiteID	RLW Site Identification Numbe	
basis	1–site has dryer , 0-no dryer	Basis
Age of Machine (in years old)	Resident reported age from on-site	Calculates Average age of dryers
age 1995-2000	1 if within range, 0 if not	Calculates % of dryers purchased between 1995 and 2000
age 1990-1994	1 if within range, 0 if not	Calculates % of dryers purchased between 1990 and 1994

age 1985-1989	1 if within range, 0 if not	Calculates % of dryers purchased between 1985 and 1989
age 1980-1984	1 if within range, 0 if not	Calculates % of dryers purchased between 1980 and 1984
age 1975-1979	1 if within range, 0 if not	Calculates % of dryers purchased between 1975 and 1979
age 1974 and Older	1 if within range, 0 if not	Calculates % of dryers purchased after 1975

Clothes Dryer Fuel Type

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Clothes Dryer.SiteID	RLW Site Identification Number	
Basis	1–site has dryer , 0-no dryer	Basis
Gas	1 if applicable, 0 if not	Calculates % of gas fueled dryers
Electric	1 if applicable, 0 if not	Calculates % of electric dryers
Propane	1 if applicable, 0 if not	Calculates % of propane fueled dryers

Clothes Dryer Homes with Dryers

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Clothes Dryer.SiteID	RLW Site Identification Number	
All Homes	1 for all homes	Basis
Dryer	1 if any found on-site null if none	Calculates % of Homes with Dryers

COOLING EQUIPMENT

Tables

Cooling System Table

SiteID	RLW Site Identification Number	
Cooling Unit #_1 - Cooling Unit #_12	Cooling system ID number	Cooling unit#_1 = Primary
Space or Central?_1 - Space or Central?_12	Space or Central System Classification	
System Type_1 - System Type_12	System type (e.g.. split system, win/wall, package, etc.)	
Size of Unit (Tons)_1 - Size of Unit (Tons)_12	Capacity of unit in Tons, from on-site	
Age of System (in years old)_1 - Age of System (in years old)_12	Customer reported age of system in years old, from on-site	
Manufacturer_1 - Manufacturer_12	Manufacturer of system, from on-site	
Model Number_1 - Model	Model number of system from	

Number_12	on-site	
Model_Clean_1 - Model_Clean_12	Model number with all non-alphanumeric symbols removed	
Capacity_1 - Capacity_12	Capacity from matching database	
Capacity Estimate_1 - Capacity Estimate_12	Capacity 1st from database, 2nd on-site recorded capacity (tons)	Database data used over on-site data
SEER_1 - SEER_12	Matched Efficiency	SEER = Seasonal Energy Efficiency Ratio [kBtu/kWh]
EER_1 - EER_12	Matched Efficiency	EER = Energy Efficiency Ratio Not used, all efficiency reported in SEER
Matched_1 - Matched_12	1 = Matched, 0 = Not Matched	
Manufacture Date_1 - Manufacture Date_12	Date of manufacture from efficiency database	
Source_1 - Source_12	If model number matched, database source of matching information	Carrier Bluebook, ARI Database et al.

Queries

Categories Cooling

SiteID	RLW Site Identification Number	
Weight	Weight	
Space or Central-1	Space or Central System Type	
System Type-1	System type (i.e. forced air furnace, baseboard, wall, etc.)	
Cooling Tons-1	Tons of cooling capacity	
Model Matched_1	Whether or not the model # was matched to an efficiency database	
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	

Cooling - Primary System Type

Categories-cooling.*	All fields from categories-	Refer to categories query

	cooling	documentation
Cooling System.SiteID	RLW Site Identification Number	
Basis	1 = Primary system found, 0 = primary system not found	Basis
Packaged Air to Air Heat Pump	1 = primary system is Packaged Air to Air Heat Pump, 0 = primary system is not Packaged Air to Air Heat Pump	Calculates % of primary cooling systems that are Packaged Air to Air Heat Pumps
Split System Air to Air Heat Pump	1 = primary system is Split System Air to Air Heat Pump, 0 = primary system is not Split System Air to Air Heat Pump	Calculates % of primary cooling systems that are Split System Air to Air Heat Pumps
Window Unit Heat Pump	1 = primary system is Window Unit Heat Pump, 0 = primary system is not Window Unit Heat Pump	Calculates % of primary cooling systems that are Window Unit Heat Pumps
Evaporative System	1 = primary system is Evaporative System, 0 = primary system is not Evaporative System	Calculates % of primary cooling systems that are Evaporative Systems
Packaged System AC	1 = primary system is Packaged System AC, 0 = primary system is not Packaged System AC	Calculates % of primary cooling systems that are Packaged System ACs
Split System AC	1 = primary system is Split System AC, 0 = primary system is not Split System AC	Calculates % of primary cooling systems that are Split System ACs
Window / Wall Room Air Conditioner	1 = primary system is Window / Wall Room Air Conditioner, 0 = primary system is not Window / Wall Room Air Conditioner	Calculates % of primary cooling systems that are Window / Wall Room Air Conditioners
Space	1= primary system type is Space, 0 = primary system type is not Space	Calculates % of primary cooling systems that are Space
Central	1= primary system type is central, 0 = primary system type is not central	Calculates % of primary cooling systems that are Central

Cooling – SEER Avg

Categories-cooling.*	All fields from categories-cooling	Refer to categories query documentation
Cooling System.SiteID	RLW Site Identification Number	
Basis	Capacity of Unit in Tons	Basis
Primary SEER	Capacity * SEER	Results table value of this analysis variable will be SEER [kBtu/kWh] Calculates Average SEER

Cooling – SEER Bins

Categories-cooling.*	All fields from categories-cooling	Refer to categories query documentation
Cooling System.SiteID	RLW Site Identification Number	
basis	1 = SEER matched, 0= SEER not matched	Basis
SEER 8 or less	1 = SEER 8.0 or less, 0 = Not SEER 8.0 or less	Calculates % of cooling systems with a SEER less than 8
SEER 8-8_99	1 = SEER 8.0 – 8.99, 0 = Not SEER 8.0 – 8.99	Calculates % of cooling systems with a SEER between 8 and 8.99
SEER 9-9_99	1 = SEER 9.0 – 9.99, 0 = Not SEER 9.0 – 9.99	Calculates % of cooling systems with a SEER between 9 and 9.99
SEER 10-10_99	1 = SEER 10.0 – 10.99, 0 = Not SEER 10.0 – 10.99	Calculates % of cooling systems with a SEER between 10 and 10.99
SEER 11-11_99	1 = SEER 11.0 – 11.99, 0 = Not SEER 11.0 – 11.99	Calculates % of cooling systems with a SEER between 11 and 11.99
SEER 12-12_99	1 = SEER 12.0 – 12.99, 0 = Not SEER 12.0 – 12.99	Calculates % of cooling systems with a SEER between 12 to 12.99
SEER 13 or Higher	1 = SEER 13 or Higher, 0 = not SEER 13 or Higher	Calculates % of cooling systems with a SEER of 13 or higher

Cooling – Ton Bins

NOTE: One ton equals 12,000 BTU

Categories-cooling.*	All fields from categories-cooling	Refer to categories query documentation
Cooling System.SiteID	RLW Site Identification Number	
Basis	1 = Capacity Found, 0 = capacity not found	Basis
Tons 0_5-0_99	1 = Tons .5 - .99, 0 = Tons not .5 - .99	Calculates % of Cooling Systems between 0.5 and 0.99 tons
Tons 1-1_49	1 = Tons 1.0 - 1.49, 0 = Tons not 1.0 - 1.49	Calculates % of Cooling Systems between 1.0 and 1.49 tons
Tons 1_5-1_99	1 = Tons 1.5 - 1.99, 0 = Tons not 1.5 - 1.99	Calculates % of Cooling Systems between 1.5 and 1.99 tons
Tons 2-2_49	1 = Tons 2.0 - 2.49, 0 = Tons not 2.0 - 2.49	Calculates % of Cooling Systems between 2.0 and 2.49 tons
Tons 2_5-2_99	1 = Tons 2.5 - 2.99, 0 = Tons not 2.5 - 2.99	Calculates % of Cooling Systems between 2.5 and 2.99 tons
Tons 3-3_49	1 = Tons 3.0 - 3.49, 0 = Tons not 3.0 - 3.49	Calculates % of Cooling Systems between 3.0 and 3.49 tons
Tons 3_5-3_99	1 = Tons 3.5 - 3.99, 0 = Tons not 3.5 - 3.99	Calculates % of Cooling Systems between 3.5 and 3.99 tons
Tons 4-4_49	1 = Tons 4.0 - 4.49, 0 = Tons not 4.0 - 4.49	Calculates % of Cooling Systems between 4.0 and 4.49 tons

Tons 4_5-5	1 = Tons 4.5 - 4.99, 0 = Tons not 4.5 - 4.99	Calculates % of Cooling Systems between 4.5 and 4.99 tons

Cooling Age Avg and Bins – Estimate

Categories-cooling.*	All fields from categories-cooling	Refer to categories query documentation
Cooling System.SiteID		
Basis	1 = All units with an Estimate of Age or manufacturer reported age, 0 = no age	Basis
Estimated Age	Estimate of manufactured date (i.e 1986)	Calculates average surveyor and manufacturer estimated age
Age 1995 to 2000	1 = Age between 1995 to 2000, 0 = Age not between 1995 to 2000	Calculates % of cooling systems purchased or manufactured between 1995 and 2000
Age 1990 to 1994	1 = Age between 1990 to 1994, 0 = Age not between 1990 to 1994	Calculates % of cooling systems purchased or manufactured between 1990 and 1994
Age 1985 to 1989	1 = Age between 1985 to 1989, 0 = Age not between 1985 to 1989	Calculates % of cooling systems purchased or manufactured between 1985 and 1989
Age 1980 to 1984	1 = Age between 1980 to 1984, 0 = Age not between 1980 to 1984	Calculates % of cooling systems purchased or manufactured between 1980 and 1984
Age 1975 to 1979	1 = Age between 1975 to 1979, 0 = Age not between 1975 to 1979	Calculates % of cooling systems purchased or manufactured between 1975 and 1979
Age 1974 and older	1 = Age 1974 or older, 0 = Age not 1974 or older	Calculates % of cooling systems purchased or manufactured before 1975

Cooling Age Avg and Bins – Mfr Reported

Categories-cooling.*	All fields from categories-cooling	Refer to categories query documentation
Cooling System.SiteID	RLW Site Identification Number	
Basis	1 = Manufacturer Reported Age, 0 = no estimate of age	Basis
Mfr Reported Age	Manufactured age (i.e. 10, if manufactured in 1986)	Calculates average manufacturer reported age
Age 1995 to 2000	1 = Age between 1995 to 2000, 0 = Age not between 1995 to 2000	Calculates % of cooling systems manufactured between 1995 to 2000
Age 1990 to 1994	1 = Age between 1990 to 1994, 0 = Age not between 1990 to 1994	Calculates % of cooling systems manufactured between 1990 to 1994
Age 1985 to 1989	1 = Age between 1985 to 1989, 0 = Age not between 1985 to 1989	Calculates % of cooling systems manufactured between 1985 to 1989

Age 1980 to 1984	1 = Age between 1980 to 1984, 0 = Age not between 1980 to 1984	Calculates % of cooling systems manufactured between 1980 to 1984
Age 1975 to 1979	1 = Age between 1975 to 1979, 0 = Age not between 1975 to 1979	Calculates % of cooling systems manufactured between 1975 to 1979
Age 1974 and older	1 = Age 1974 or older, 0 = Age not 1974 or older	Calculates % of cooling systems manufactured after 1975

DISHWASHERS

Tables

Dishwasher Table

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
SiteID	RLW Site Identification Number	
Dishwasher #	Code for primary or secondary dishwasher	
Age of Dishwasher (in years old)	Age from model number match	
Manufacturer	Manufacturer from on-site	
Model Number	Model number from onsite	
Model_Clean	Model Number with non alphanumerics removed	
EN_FACTOR	Energy Factor	[load/kWh]-from database
Source	CEC_ckwa if matched,	CEC_ckwa was only database used
Age Estimate	Age from on-site	Resident reported

Queries

All of the following dishwasher queries should be analyzed using the 'Categories--Gen' query.

Dishwasher Age Avg and Bins

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Dishwasher.SiteID	RLW Site Identification Number	
basis	1 = dishwasher has onsite age estimate, 0 = none	Basis
Age	Age of Dishwasher	Calculates Average age of dishwasher
Age 1995-2000	1 if applicable, 0 if not	Calculates % of dishwashers purchased between 1995 and 2000
Age 1990-1994	1 if applicable, 0 if not	Calculates % of dishwashers purchased between 1990 and 1994

Age 1985-1989	1 if applicable, 0 if not	Calculates % of dishwashers purchased between 1985 and 1989
Age 1980-1984	1 if applicable, 0 if not	Calculates % of dishwashers purchased between 1980 and 1984
Age 1975-1979	1 if applicable, 0 if not	Calculates % of dishwashers purchased between 1975 and 1979
Age 1974 and Older	1 if applicable, 0 if not	Calculates % of dishwashers purchased after 1975

Dishwasher En Factor Avg

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Dishwasher.SiteID	RLW Site Identification Number	
Basis	Number of people if dishwasher is at site, null if no dishwasher	Basis
EF	Energy Factor	[energy factor]*[Number of People at Home] in [loads/kWh] Calculates average energy factor for dishwashers

Dishwasher En Factor Bins

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Dishwasher.SiteID	RLW Site Identification Number	
basis	Number of people if dishwasher is at site, null if no dishwasher	Basis
EF 0_275 to 0_375	1 if within range, 0 if not	Calculates % of dishwashers with energy factor between 0.275 and 0.375
EF 0_376 to 0_475	1 if within range, 0 if not	Calculates % of dishwashers with energy factor between 0.376 and 0.475
EF 0_476 to 0_575	1 if within range, 0 if not	Calculates % of dishwashers with energy factor between 0.476 and 0.575
EF 0_576 to 0_675	1 if within range, 0 if not	Calculates % of dishwashers with energy factor between 0.576 and 0.675
EF 0_676 to 0_775	1 if within range, 0 if not	[load/kWh] Calculates % of dishwashers with energy factor between 0.676 and 0.775

Gen Dishwasher Energy Factor Comparison

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Dishwasher.SiteID	RLW Site Identification Number	
basis	Number of people if dishwasher is	Basis

	at site, null if no dishwasher	
EF 0_275 to 0_459	1 if within range, 0 if not	[load/kWh] Calculates % of dishwashers with energy factor between 0.275 and 0.459
EF 0_460 to 0_519	1 if within range, 0 if not	Calculates % of dishwashers with energy factor between 0.460 and 0.519
EF 0_520 to 0_775	1 if within range, 0 if not	Calculates % of dishwashers with energy factor between 0.520 and 0.775

Dishwasher Homes with Dishwasher

Field Heading	Value	Comments
Categories—Gen*	All fields from categories--Gen	Refer to categories query documentation
Dishwasher.SiteID	RLW Site Identification Number	
All homes	1	Basis
Dishwasher	1 if Dishwasher at site, 0 if not	Calculates % of homes with dishwasher

HEATING EQUIPMENT

Tables

Furnace

SiteID	RLW Site Identification Number	
Furnace #_1-Furnace #_10	Furnace ID number	Furnace#_1 = Primary
Space or Central?_1-Space or Central?_10	Space or Central System Type	
Fuel Type_1-Fuel Type_10	Fuel type of system (i.e. electric, gas wood, etc.)	
If Electric-KW_1-If Electric-KW_10	If fuel is electric, capacity in kW	From on-site
If Gas-kBtuh_1-If Gas-kBtuh_10	If fuel type is fuel, capacity in kBtuh	From on-site
Cords_1-Cords_10	If fuel type is wood, cords burned per year	From on-site
System Type_1-System Type_10	System type (i.e. forced air furnace, baseboard, wall, etc.)	
Age of System (in years old)_1-Age of System (in years old)_10	Customer reported age of system in years old.	From on-site
Manufacturer_1-Manufacturer_10	On-site name of furnace manufacturer	From nameplate
Model Number_1-Model Number_10	On-site model number	From nameplate
Model_Clean_1-Model_Clean_10	Model number with all alphanumeric symbols removed	
Source_1-Source_10	If model number matched, database source of matching information	
Input_1-Input_10	CEC_cent input capacity (kBtuh)	

Output_1-Output_10	CEC_cent output capacity (kBtuh)	
AFUE_1-AFUE_10	Annual Fuel Utilization Efficiency for unit if matched	
Matched_1-Matched_10	1 = Matched, 0 = Not Matched	
Capacity_1-Capacity_10	Combination of manufacturer reported and customer reported	
Capacity Gas	On-site or database capacity in kBTUh	
Capacity Electric	On-site or database capacity in kW	
Annual Fuel Consumption_1-Annual Fuel Consumption_10		
Manufacture Date_1-Manufacture Date_10	Date of manufacture form efficiency database	
Age Estimate_1-Age Estimate_10	Combination of 1st, manufactured date, 2nd, customer reported age.	

Queries

Categories – Furnace

SiteID	RLW Site Identification Number	
Weight	Weight	
Gas Capacity (kbtu)	On-site or database capacity in kBtuh	
Electric Capacity (kW)	On-site or database capacity in kW	
Fuel Type	Fuel type of system (i.e. electric, gas wood, etc.)	
System Type	System type (i.e. forced air furnace, baseboard, wall, etc.)	
Space or Central	Space or Central System Type	
Model Matched_1	Whether or not the model # was matched to an efficiency database	Values = "Matched" "Not Matched" "NA"
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	

Furnace-AFUE Bins

categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	
Basis	1= AFUE found , 0= AFUE not found	Basis
AFUE 66 or Less	1 = AFUE 66 or less, 0 = Not AFUE 66 or less	Calculates % of heating systems with AFUE under 66
AFUE 66-70_99	1 = AFUE AFUE 66-70_99, 0 = Not AFUE 66-70_99	Calculates % of heating systems with AFUE between 66 and 70.99
AFUE 71-75_99	1 = AFUE 71-75_99, 0 = Not AFUE 71-75_99	Calculates % of heating systems with AFUE between 71 and 75.99
AFUE 76-80_99	1 = AFUE 76-80_99, 0 = Not AFUE 76-80_99	Calculates % of heating systems with AFUE between 76 and 80.99
AFUE 81-86	1 = AFUE 81-86, 0 = Not AFUE 81-86	Calculates % of heating systems with AFUE between 81 and 86
AFUE 91-96	1 = AFUE 91-96, 0 = Not AFUE 91-96	Calculates % of heating systems with AFUE between 91 and 96

Furnace-All Homes with Furnace

categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	
basis	All "1"	Basis
Primary Furnace	1 = Primary Furnace, 0= No primary furnace	Calculates % of homes with 1 furnace (excluding heat pumps)
Secondary Furnace	1 = Secondary Furnace, 0= No Secondary Furnace	Calculates % of homes with 2 furnaces (excluding heat pumps)
Third Furnace	1 = Third Furnace, 0= No Third Furnace	Calculates % of homes with 3 furnaces (excluding heat pumps)
Fourth Furnace	1 = Fourth Furnace, 0= Fourth Furnace	Calculates % of homes with 4 furnaces (excluding heat pumps)
Fifth Furnace	1 = Fifth Furnace, 0= Fifth Furnace	Calculates % of homes with 5 furnaces (excluding heat pumps)
Sixth Furnace	1 = Sixth Furnace, 0= No Sixth Furnace	Calculates % of homes with 6 furnaces (excluding heat pumps)
Seventh Furnace	1 = Seventh Furnace, 0= No Seventh Furnace	Calculates % of homes with 7 furnaces (excluding heat pumps)
Eighth Furnace	1 = Eighth Furnace, 0= No Eighth Furnace	Calculates % of homes with 8 furnaces (excluding heat pumps)
Ninth Furnace	1 = Ninth Furnace, 0= No Ninth Furnace	Calculates % of homes with 9 furnaces (excluding heat pumps)
Tenth Furnace	1 = Tenth Furnace, 0= No Tenth Furnace	Calculates % of homes with 10 furnaces (excluding heat pumps)

Furnace-Average AFUE

categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	
Basis	Input Capacity of furnace in kBtuh	For all units with an AFUE there must be capacity.
AFUE	"capacity in kBtuh * "AFUE_1	[no units] Calculates average AFUE of heating systems

Furnace Capacity Bins-Proportions

categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	
Basis	Data in this field is not relevant	Not used
Capacity	If capacity gas or capacity electric is not null then "1" otherwise "0"	Calculates % of furnaces within each capacity bin by fuel type. The user must select the special option 'Proportions of Total' in MBSS VB when analyzing this data. Then group by fuel type and capacity gas and electric.

Furnace-Fuel Types

categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	
Basis	Fuel type known = 1, Fuel type not known = 0	Basis
Gas	Gas = 1, Not Gas = 0	Calculates % of heating systems that are gas
DK	DK = 1, Not DK = 0	Calculates % heating systems where fuel type was not observable
Electricity	Electricity = 1, Not Electricity = 0	Calculates % of heating systems that are electric
Fuel Oil	Fuel Oil = 1, Not Fuel Oil = 0	Calculates % of heating systems that are fuel oil
Kerosene	Kerosene = 1, Not Kerosene = 0	Calculates % of heating systems that are kerosene
Propane	Propane = 1, Not Propane = 0	Calculates % of heating systems that are propane
Wood	Wood = 1, Not Wood = 0	Calculates % of heating systems that are wood

Furnace-Primary System Type

Categories-Furnace.*	All fields from categories-	Refer to categories query

	furnace	documentation
Furnace.SiteID	RLW Site Identification Number	
Basis	1 = Primary Furnace, 0 = No Primary Furnace	Basis
Baseboard	1 = Primary furnace is Baseboard, 0 = Primary Furnace is not Baseboard	Calculates % of heating systems that are baseboard
Ceiling Cable	1 = Primary furnace is Ceiling Cable, 0 = Primary Furnace is not Ceiling Cable	Calculates % of heating systems that are baseboard
DK	1 = Primary furnace is DK, 0 = Primary Furnace is not DK	Calculates % of heating systems that are baseboard
Fireplace	1 = Primary furnace is Fireplace, 0 = Primary Furnace is not Fireplace	Calculates % of heating systems that are baseboard
Floor	1 = Primary furnace is Floor, 0 = Primary Furnace is not Floor	Calculates % of heating systems that are baseboard
Forced Air Furnace	1 = Primary furnace is Forced Air Furnace, 0 = Primary Furnace is not Forced Air Furnace	Calculates % of heating systems that are Forced Air Furnaces
Hydronic System	1 = Primary furnace is Hydronic System, 0 = Primary Furnace is not Hydronic System	Calculates % of heating systems that are Hydronic Systems
Portable	1 = Primary furnace is Portable, 0 = Primary Furnace is not Portable	Calculates % of heating systems that are Portable
Wall	1 = Primary furnace is Wall, 0 = Primary Furnace is not Wall	Calculates % of heating systems that are Wall
Window Unit Resistance	1 = Primary furnace is Window Unit Resistance, 0 = Primary Furnace is not Window Unit Resistance	Calculates % of heating systems that are Window Unit Resistance
Woodstove	1 = Primary furnace is Woodstove, 0 = Primary Furnace is not Woodstove	Calculates % of heating systems that are Woodstoves
Space	1 = Space, 0= Not Space	Calculates % of heating systems that are space
Central	1 = Central, 0= Not Space	Calculates % of heating systems that are central

Furnace Age Bins - Estimated Ages

Categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	
Basis	1 = Estimate of Age from onsite or manufacturer reported sources, = No Age	Basis
Primary Furnace Estimated Age	Estimated Age of Furnace	2000 – age estimate to get age in year made (i.e. 1986)

Age 1995 to 2000	1 = Age between 1995 to 2000, 0 = Age not between 1995 to 2000	Calculates % of heating systems manufactured or purchased between 1995 and 2000
Age 1990 to 1994	1 = Age between 1990 to 1994, 0 = Age not between 1990 to 1994	Calculates % of heating systems manufactured or purchased between 1990 and 1994
Age 1985 to 1989	1 = Age between 1985 to 1989, 0 = Age not between 1985 to 1989	Calculates % of heating systems manufactured or purchased between 1985 and 1989
Age 1980 to 1984	1 = Age between 1980 to 1984, 0 = Age not between 1980 to 1984	Calculates % of heating systems manufactured or purchased between 1980 and 1984
Age 1975 to 1979	1 = Age between 1975 to 1979, 0 = Age not between 1975 to 1979	Calculates % of heating systems manufactured or purchased between 1975 and 1979
Age 1974 and older	1 = Age 1974 or older, 0 = Age not 1974 or older	Calculates % of heating systems manufactured or purchased before 1975

Furnace Age Bins - Manufactured Date

categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	
Basis	1 = Manufactured Age, 0 = No estimate of Manufactured Age	Basis
Primary Furnace Manufactured Age	Manufacturer reported age from matched database	Calculates Average Manufacturer Reported Age
Age 1995 to 2000	1 = Age between 1995 to 2000, 0 = Age not between 1995 to 2000	Calculates % of heating systems manufactured between 1995 and 2000
Age 1990 to 1994	1 = Age between 1990 to 1994, 0 = Age not between 1990 to 1994	Calculates % of heating systems manufactured between 1990 and 1994
Age 1985 to 1989	1 = Age between 1985 to 1989, 0 = Age not between 1985 to 1989	Calculates % of heating systems manufactured between 1985 and 1989
Age 1980 to 1984	1 = Age between 1980 to 1984, 0 = Age not between 1980 to 1984	Calculates % of heating systems manufactured between 1980 and 1984
Age 1975 to 1979	1 = Age between 1975 to 1979, 0 = Age not between 1975 to 1979	Calculates % of heating systems manufactured between 1975 and 1979
Age 1974 and older	1 = Age 1974 or older, 0 = Age not 1974 or older	Calculates % of heating systems manufactured before 1975

Heating System Saturation

categories-Furnace.*	All fields from categories-furnace	Refer to categories query documentation
Furnace.SiteID	RLW Site Identification Number	

All Homes	1=All homes	Basis
Furnace or Heat Pump	1=All homes with furnace or heat pump	Calculates % of homes with either a heat pump or other heating system as the primary system

HEAT PUMPS

Tables

Heatpumps

SiteID	RLW Site Identification Number	
Heat Pump #_1 - Heat Pump #_2	Heat pump number found on-site	Heatpump#_1 = Primary
Space or Central?_1 - Space or Central?_2	Space or Central System Type	
System Type_1h - System Type_1	System type (i.e. split system, win/wall, package, etc.)	
Size of Unit (Tons)_1 - Size of Unit (Tons)_2	Tons of unit from on-site	
Supplemental Heat (kW)_1 = Supplemental Heat (kW)_2	Supplemental heating in kW from on-site	
Age of System (in years old)_1 - Age of System (in years old)_2	Customer reported age of system in years old, from on-site	
Manufacturer_1 - Manufacturer_2	Manufacturer of system, from on-site	
Model Number_1 Model Number_2	Model number of system from on-site	
Model_Clean_1 - Model_Clean_2	Model number with all alphanumeric symbols removed	
Capacity_1 - Capacity_2	On-site input capacity in kBTUh	
SEER_1 - SEER_2	Matched Efficiency	SEER = Seasonal Energy Efficiency Ratio
EER_1 - EER_2	Matched Efficiency	EER = Energy Efficiency Ratio Not used, all efficiency reported in SEER
Matched_1 - Matched_2	1 = Matched, 0 = Not Matched	
Manufactured Date_1 - Manufactured Date_2	Date of manufacture form efficiency database	
HSPF_1 - HSPF_2	Heating Efficiency for matched units	Very few HSPF found, not reported
SOURCE_1 - SOURCE_2	If model number matched, database source of matching information	
Age Estimate_1 - Age Estimate_2	Combination of 1st, manufactured date, 2nd, customer reported age.	
Capacity Estimate_1 - Capacity Estimate_2	Combined manufactured capacity data with on-site	

	capacity data	

Queries

Categories-Heat pump

SiteID	RLW Site Identification Number	
Weight		
Space or Central-1	Space or Central System Type	
System Type-1	System type (i.e. forced air furnace, baseboard, wall, etc.)	
Cooling Tons-1	Tons of cooling capacity	In 1 ton incremental bins
Model Matched_1	Whether or not the model # was matched to an efficiency database	
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	

Heat Pump Age Avg and Bins - Estimate

Categories-Heat pump.*	All fields from categories-heat pump	Refer to categories query documentation
heat pump.SiteID	RLW Site Identification Number	
Basis	1 = Age estimate made, 0 = Age estimate not made	Basis
Estimated Age	Estimated Age of Heat Pumps from onsites and matched databases	Calculates Average Manufacturer Reported or on site estimated Age
Age 1995 to 2000	1 = Age between 1995 to 2000, 0 = Age not between 1995 to 2000	Calculates % of heat pumps manufactured or purchased between 1995 and 2000
Age 1990 to 1994	1 = Age between 1990 to 1994, 0 = Age not between 1990 to 1994	Calculates % of heat pumps manufactured or purchased between 1990 and 1994
Age 1985 to 1989	1 = Age between 1985 to 1989, 0 = Age not between 1985 to 1989	Calculates % of heat pumps manufactured or purchased between 1985 and 1989

Age 1980 to 1984	1 = Age between 1980 to 1984, 0 = Age not between 1980 to 1984	Calculates % of heat pumps manufactured or purchased between 1980 and 1984
Age 1975 to 1979	1 = Age between 1975 to 1979, 0 = Age not between 1975 to 1979	Calculates % of heat pumps manufactured or purchased between 1975 and 1979
Age 1974 and older	1 = Age 1974 or older, 0 = Age not 1974 or older	Calculates % of heat pumps manufactured or purchased after 1975

Heat Pump Age Avg and Bins – Mfr Reported

Categories-Heat pump.*	All fields from categories-heat pump	Refer to categories query documentation
heat pump.SiteID	RLW Site Identification Number	
Basis	1 = heat pump at site, 0 = no heat pump	Basis
Mfr Reported Age	Manufacturer reported age from matched database	Calculates Average Manufacturer Reported Age
Age 1995 to 2000	1 = Age between 1995 to 2000, 0 = Age not between 1995 to 2000	Calculates % of heat pumps manufactured between 1995 and 2000
Age 1990 to 1994	1 = Age between 1990 to 1994, 0 = Age not between 1990 to 1994	Calculates % of heat pumps manufactured between 1990 and 1994
Age 1985 to 1989	1 = Age between 1985 to 1989, 0 = Age not between 1985 to 1989	Calculates % of heat pumps manufactured between 1985 and 1989
Age 1980 to 1984	1 = Age between 1980 to 1984, 0 = Age not between 1980 to 1984	Calculates % of heat pumps manufactured between 1980 and 1984
Age 1975 to 1979	1 = Age between 1975 to 1979, 0 = Age not between 1975 to 1979	Calculates % of heat pumps manufactured between 1975 and 1979
Age 1974 and older	1 = Age 1974 or older, 0 = Age not 1974 or older	Calculates % of heat pumps manufactured before 1975

Heat Pump - SEER Bins

Categories-Heat pump.*	All fields from categories-heat pump	Refer to categories query documentation
heat pump.SiteID	RLW Site Identification Number	
Basis	1 = SEER Matched, 0 = SEER Not Matched	Basis
SEER 7_0 to 7_99	1 = SEER 7.0 – 7.99, 0 = Not SEER 7.0 – 7.99	Calculates % of heat pumps with SEER between 7 and 7.99
SEER 8_0 to 8_99	1 = SEER 8.0 – 8.99, 0 = Not SEER 8.0 – 8.99	Calculates % of heat pumps with SEER between 8 and 8.99
SEER 9_0 to 9_99	1 = SEER 9.0 – 9.99, 0 = Not	Calculates % of heat pumps with

	SEER 9.0 – 9.99	SEER between 9 and 9.99
SEER 10_0 to 10_99	1 = SEER 10.0 – 10.99, 0 = Not SEER 10.0 – 10.99	Calculates % of heat pumps with SEER between 10 and 10.99
SEER 11_0 to 11_99	1 = SEER 11.0 – 11.99, 0 = Not SEER 11.0 – 11.99	Calculates % of heat pumps with SEER between 11 and 11.99
SEER 12_0 to 12_99	1 = SEER 12.0 – 12.99, 0 = Not SEER 12.0 – 12.99	Calculates % of heat pumps with SEER between 12 and 12.99

Heat Pump - System Types –Proportions
(MBSS analysis of this query requires the special "Proportions" option)

Categories-Heat pump.*	All fields from categories-heat pump	Refer to categories query documentation
heat pump.SiteID	RLW Site Identification Number	
Basis	1 = Heat pump primary system, 0 = Heat pump not primary system	Basis
System Type	Type of primary system	Group by "System Type" when running MBSS VB Calculates % of Heat Pumps by System Type

Heat Pump - Ton Bins
NOTE: 12,000 BTU per ton

Categories-Heat pump.*	All fields from categories-heat pump	Refer to categories query documentation
heat pump.SiteID	RLW Site Identification Number	
Basis	1 = matched, 0 = not matched	Basis
Capacity 0_0 to _99 Tons	1 = .01-.99 Tons, 0 = not .01-.99 Tons	Calculates % of heat pumps between 0 and 0.99 tons
Capacity 1_0 to 1_99 Tons	1 = 1.0-1.99 Tons, 0 = not 1.0-1.99 Tons	Calculates % of heat pumps between 1 and 1.99 tons
Capacity 2_0 to 2_99 Tons	1 = 2.0-2.99 Tons, 0 = not 2.0-2.99 Tons	Calculates % of heat pumps between 2 and 2.99 tons
Capacity 3_0 to 3_99 Tons	1 = 3.0-3.99 Tons, 0 = not 3.0-3.99 Tons	Calculates % of heat pumps between 3 and 3.99 tons
Capacity 4_0 to 5_0 Tons	1 = 4.0-5.0 Tons, 0 = not 4.0-5.0 Tons	Calculates % of heat pumps between 4 and 5 tons

Heat Pump Average SEER - All Units
NOTE: 12,000 BTU per ton

Categories-Heat pump.*	All fields from categories-heat pump	Refer to categories query documentation
heat pump.SiteID	RLW Site Identification Number	
Basis	Capacity in Tons	Basis
SEER	SEER (Seasonal Energy Efficiency Ratio) * Capacity	Calculates average SEER [kBtu/kWh]

Heat Pump - Homes with Heat Pumps

Categories-Heat pump.*	All fields from categories-heat pump	Refer to categories query documentation
heat pump.SiteID	RLW Site Identification Number	
Basis	1	All homes
Heat Pump #_1	1 = if home has heatpump, 0 = home does not have heatpump	Calculates % of all homes with heat pump

HOT WATER HEATERS

Tables

Water Heater Table

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Water Heater #	1=primary, 2=secondary	
Fuel Type	Gas or Electric	From on-site
Fuel Type_On Site	Gas, Heat Pump, No Heat Pump	To determine if Electric water heater users have heat pump or not
on-site energy factor	Energy Factor from nameplate	
Size (Gallons)	Storage capacity in Gallons	From on-site
Heater Type	Storage or Instantaneous	
Internal Tank Insulation (R-Value)	R-Value of Internal Tank insulation from on-site	
External Tank Wrap?	Yes -external tank wrap, No wrap	
Age (in years old)	Estimated Age of Water heater in years old	Resident reported
If Electric-KW	Capacity in kW if Electric	
If Gas-kBtuh	Capacity in kBtuh if gas	
Manufacturer	Manufacturer fro on-site	
Model Number	Model number from on-site	
Model_Clean	Model number with non-alphanumerics removed	Used for database matching
Fuel	Electric, Gas	Gas is natural gas or propane
Gallons	Storage capacity in gallons from database match	
Gallons Estimate	Storage capacity in gallons from on-site	
Instant	Yes = Instantaneous , No = storage	Only one instantaneous heater found
Input	Input Capacity Btu or kW from database match	
Efficiency	Efficiency of water heater from database match	No cycling, and transmission losses considered
Annual Energy Consumption	Annual Energy consumption from database matching	Btu for Gas, kWh for electric
Energy Factor	Energy Factor from database matching	Energy Factor for water heater is unitless, (water heater delivered energy/energy consumed)

Source	CEC_gwh for matched gas heaters, CEC_ewh for matched electric water heaters	
Age Estimate	Estimated Manufacture Date from on-site	(2000-Age in years old)

Queries

Categories-Water Heater

Field Heading	Value	Comments
SiteID	All fields from categories-Water Heater	Refer to categories query documentation
Weight	Weight	
Fuel Type_1	Fuel Type of Primary Water heater	Gas or Electric
Size_1	Storage Capacity of Primary Water heater	Gallons
type_1	Storage or Instantaneous	Only one instantaneous found in study
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	
Remodeled in Last 10 yrs?	Ownership Status of Residence	

Water Heater Age Avg and Bins-Estimate

Field Heading	Value	Comments
Categories-Water Heater*	All fields from categories-Water Heater	Refer to categories query documentation
Water heater.SiteID	RLW Site Identification Number	
basis	1 if age data for WH exists, 0 if not	Basis No data on shared heaters were collected
Age	Age of WH in years old	Calculates average estimated or manufacturer reported age of water heaters On-site data was used if not matched with efficiency database when available
Age 2000-1995	1 if within range, 0 if not	Calculates % of water heaters purchased or manufactured between 1995 and 2000
Age 1994-1990	1 if within range, 0 if not	Calculates % of water heaters

		purchased or manufactured between 1990 and 1994
Age 1989-1985	1 if within range, 0 if not	Calculates % of water heaters purchased or manufactured between 1985 and 1989
Age 1984-1980	1 if within range, 0 if not	Calculates % of water heaters purchased or manufactured between 1980 and 1984
Age 1979-1975	1 if within range, 0 if not	Calculates % of water heaters purchased or manufactured between 1975 and 1979
Age 1974 and Older	1 if within range, 0 if not	Calculates % of water heaters purchased or manufactured before 1974

Water Heater En Factor Avg

Field Heading	Value	Comments
Categories-Water Heater*	All fields from categories-Water Heater	Refer to categories query documentation
Water heater.SiteID	RLW Site Identification Number	
basis	UEC, annual energy consumption	Basis
En Factor	UEC * Energy factor	This analysis variable the value energy factor in the results table

Water Heater En Factor Bins

Field Heading	Value	Comments
Categories-Water Heater*	All fields from categories-Water Heater	Refer to categories query documentation
Water heater.SiteID	RLW Site Identification Number	
basis	1 for sites with energy factor data, for those without	Basis On-site data was used if not matched with efficiency database when available
EF _48-_519	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.48 and 0.519
EF _52-_539	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.52 and 0.539
EF _54-_559	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.54 and 0.559
EF _56-_579	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.56 and 0.579
EF _58-_599	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.58 and 0.599
EF _60-_619	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.60 and 0.619
EF _62-_639	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.62 and 0.639
EF _86-_869	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.86 and 0.869
EF _87-_879	1 if within range, 0 if not	Calculates % of water heaters with an

		energy factor between 0.87 and 0.879
EF _88-_889	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.88 and 0.889
EF _89-_899	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.89 and 0.899
EF _90-_909	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.90 and 0.909
EF _91-_919	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.91 and 0.919
EF _92-_929	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.92 and 0.929
EF _93-_939	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.93 and 0.939
EF _94-_949	1 if within range, 0 if not	Calculates % of water heaters with an energy factor between 0.94 and 0.949

Water Heater Fuel Type

Field Heading	Value	Comments
Categories-Water Heater*	All fields from categories-Water Heater	Refer to categories query documentation
Water heater.SiteID	RLW Site Identification Number	
Basis	1if site has wh data, 0 if none	Basis Shared water heater data was not collected
electric	1 if applicable, 0 if not	Calculates % of water heaters that are electric
gas	1 if applicable, 0 if not	Calculates % of water heaters that are gas
DK	1 if applicable, 0 if not	Calculates % of water heaters for which the fuel type was unobservable

Water Heater Fuel Type Proportions

Field Heading	Value	Comments
Categories-Water Heater*	All fields from categories-Water Heater	Refer to categories query documentation
Water heater.SiteID	RLW Site Identification Number	
Basis	All sites=1	Basis
Analysis	If site has water heater with a specified fuel type, then 1, else 0	Calculates % of water heaters by fuel type In MBSS VB, select the special option "proportions" and group by fuel type.

Water Heater Size Avg and Bins-Estimate

Field Heading	Value	Comments
Categories-Water Heater*	All fields from categories-Water Heater	Refer to categories query documentation
Water heater.SiteID	RLW Site Identification Number	

Basis	1 for WH with size data, 0 if none	Basis
Gallons Estimate	Storage capacity in gallons	Calculates Average estimated size of water heaters On-site data used if no database match
Gallons 1	1 if within range, 0 if not	Calculates % of water heaters that are 1 gallon
Gallons 20 to 24	1 if within range, 0 if not	Calculates % of water heaters that are between 20 and 24 gallons
Gallons 30 to 34	1 if within range, 0 if not	Calculates % of water heaters that are between 30 and 34 gallons
Gallons 35 to 39	1 if within range, 0 if not	Calculates % of water heaters that are between 35 and 39 gallons
Gallons 40 to 44	1 if within range, 0 if not	Calculates % of water heaters that are between 40 and 44 gallons
Gallons 50 to 54	1 if within range, 0 if not	Calculates % of water heaters that are between 50 and 54 gallons
Gallons 55 to 59	1 if within range, 0 if not	Calculates % of water heaters that are between 55 and 59 gallons
Gallons 60 to 64	1 if within range, 0 if not	Calculates % of water heaters that are between 60 and 64 gallons
Gallons 65 to 69	1 if within range, 0 if not	Calculates % of water heaters that are between 65 and 69 gallons
Gallons 75 to 79	1 if within range, 0 if not	Calculates % of water heaters that are between 75 and 79 gallons
Gallons 80 to 84	1 if within range, 0 if not	Calculates % of water heaters that are between 80 and 84 gallons
Gallons >100	1 if within range, 0 if not	Calculates % of water heaters that are over 100 gallons

Water Heater Tank Wrap

Field Heading	Value	Comments
Categories-Water Heater*	All fields from categories-Water Heater	Refer to categories query documentation
Water heater.SiteID	RLW Site Identification Number	
Basis	1 if tank wrap observable	Basis
Tank Wrapped	1 if tank wrapped, 0 if not	Calculates % of water heaters that have an external tank wrap
Tank NotWrapped	1 if tank not wrapped, 0 if not	Calculates % of water heaters that do not have an external tank wrap

REFRIGERATOR FREEZERS

Tables

Refrigerator – Freezer Table

Field Heading	Value	Comments

SiteID	RLW Site Identification Number	
Ref-Freez #_1 – Ref-Freez #_2	Primary Refrigerator given an indicator of "1"	
Description_1- Description_2	Type of Freezer	Auditor Reported
Descrip_All_1- Descrip_All_2	Type of Refrigerator	Manufacturer and Auditor Reported
Size of unit (cuft)_1- Size of unit (cuft)_2	Size (CuFt)	Auditor or Owner estimate
Percentage of time unit is in use?_1- Percentage of time unit is in use?_2	% of time used	Average over the course of a year
Through the door dispenser?_1- Through the door dispenser?_2	"yes"=All units with through the door dispensers, "no"=all	
Age (in years old)_1- Age (in years old)_2	Age (years)	Auditor or Owner estimate
Age Estimate_1- Age Estimate_2	Manufacture Date	Mfr Reported and Estimate Combined
Manufacturer_1- Manufacturer_2	Manufacturer	Auditor Reported
Model Number_1- Model Number_2	Model Number as found on site	Auditor Reported
Model_Clean_1- Model_Clean_2	Model Number cleaned for linking	Auditor Reported -No dashes, commas,etc.
Source_1- Source_2	Source of Efficiency Data	
Fresh Food CuFt_1- Fresh Food CuFt_2	CuFt of fresh food compartment for linked models	Mfr Reported-AHAM or CEC
Freezer CuFt_1- Freezer CuFt_2	CuFt of freezer compartment for linked models	Mfr Reported-AHAM or CEC
Total CuFt_1- Total CuFt_2	Total CuFt for linked models	Mfr Reported-AHAM or CEC
CuFt Estimate_1- CuFt Estimate_2	Total Size (CuFt)	Mfr Reported and Estimate Combined
Kwh/Yr_UEC_1- Kwh/Yr_UEC_2	Annual Unit Energy Consumption	Mfr Reported-AHAM or CEC
Mfr Date_1- Mfr Date_2	Manufacturer Reported Manufacture Date	Mfr Reported-AHAM
Type_1- Type_2	RF= "Refrigerator"	Mfr Reported-CEC
Product Class Orig_1- Product Class Orig_2	Raw Data-Type of Refrigerator	Mfr Reported-AHAM or CEC
Product Class Code_1- Product Class Code_2	Type of Refrigerator-Numeric 1=TF 2=SS 3=SI 4=SD 5-BF	Recoding of previous text field into numeric field
Product Class_1-	Cleaned Type of Refrigerator	

Product Class_2	"TF"=Top Mounted Freezer "SS"=Side by Side, no ice dispenser "SI"= Side by Side, with ice dispenser "SD"=Single Door "BF"=Bottom Mounted Freezer	
1993 Standards_1	1993 Federal Appliance Standards	
1993 E-Star_1	1993 Energy Star Appliance Standards	20% below 1993 Federal Appliance Standards
1993 E-Star Y/N_1	"1"=1993 Energy Star Qualified, "0"=Not Qualified	In order to be qualified, the UEC of the unit must be lower than the Energy star standards
2001 Standards_1	2001 Federal Appliance Standards	
2001 E-Star_1	2001 Energy Star Appliance Standards	10% below 2001 Federal Appliance Standards
2001 E-Star Y/N_1	"1"=2001 Energy Star Qualified, "0"=Not Qualified	In order to be qualified, the UEC of the unit must be lower than the Energy star standards
Percentage +/- 2001 Std_1	% above or below 2001 Federal Appliance Standards	

Queries

Categories-RefFrz-1

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
RefFrz Type_1	Primary Refrigerator Type	
RefFrz Size_1	Primary Refrigerator Size [CuFt]	
RefFrz Age_1	Primary Refrigerator Age Range	
Type and Defrost_1	Type and Auto, Partial or Manual Defrost	-A,-P or -M
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Year Built	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	

Categories-RefFrz-2

Same as 'Categories-RefFrz-1', except the type, size, and age fields refer to the secondary refrigerators in the residences.

RefFrz All Homes with 2nd or 3rd Ref-Half or Full Size

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
All Sites	All sites given an indicator of "1"	Basis
Second Ref Full and Half	All sites with a full or half sized secondary refrigerator given an indicator of "1"	Calculates % of homes with a second full or half sized refrigerator
Second Ref Full Only	All sites with a full sized secondary refrigerator given an indicator of "1"	Calculates % of homes with a second full sized refrigerator
Third Ref Full and Half	All sites with a full or half sized third refrigerator given an indicator of "1"	Calculates % of homes with a third full or half sized refrigerator
Third Ref Full Only	All sites with a full sized third refrigerator given an indicator of "1"	Calculates % of homes with a third full sized refrigerator

RefFrz-1 % Energy Star Qual

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	Refer to Categories Query documentation
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
All Types	All sites with refrigerators that would potentially qualify for the energy star program (based upon cuft requirements by type of refrigerator) given an indicator of "1"	Basis All SD excluded All TF under 12.5 excluded All SS, SI, or BF under 18.5 excluded
1993 E Star	All sites with refrigerators that meet the 1993 E-star program standards given an indicator of "1", all else "0" or null	Calculates % of refrigerators that meet the 1993 E-star program
2001 E Star	All sites with refrigerators that meet the 2001 E-star program standards given an indicator of "1", all else "0" or null	Calculates % of refrigerators that meet the 2001 E-star program

RefFrz-2 % Energy Star Qual

Same as 'RefFrz-1 % Energy Star Qual', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable.   Use the 'Categories-RefFrz-2' Query in conjunction with this query.

RefFrz-1 All by Type

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
All Homes	All 1258 Sites given an indicator of "1"	Basis
Top Freezer (TF)	All sites with a primary refrigerator of type "TF" given an indicator of "1"	Calculates % of refrigerators that are Top Freezer (TF)
Side by Side No Ice Dispenser (SS)	All sites with a primary refrigerator of type "SS" given an indicator of "1"	Calculates % of refrigerators that are Side by Side No Ice Dispenser (SS)
Side by Side with Ice Dispenser (SI)	All sites with a primary refrigerator of type "SI " given an indicator of "1"	Calculates % of refrigerators that are Side by Side with Ice Dispenser (SI)
Single Door (SD)	All sites with a primary refrigerator of type "SD" given an indicator of "1"	Calculates % of refrigerators that are Single Door (SD)
Bottom Freezer (BF)	All sites with a primary refrigerator of type "BF" given an indicator of "1"	Calculates % of refrigerators that are Bottom Freezer (BF)
Half Size (HS)	All sites with a primary refrigerator of type "HS" given an indicator of "1"	Calculates % of refrigerators that are Half Size (HS)

RefFrz-2 All by Type

Same as 'RefFrz-1 All by Type', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable.   Use the 'Categories-RefFrz-2' Query in conjunction with this query.

RefFrz-1 All Pct by Manufacture Date-Estimate

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
Basis	All sites with age estimate from onsite or manufacturer given an indicator of "1"	Basis
Age Estimate	Age estimate is the manufacturer date if the model was matched,	Calculates the average manufacture or purchase age

	else the auditor estimate	
age 1995-2000	Sites with refrigerators in this age range given indicator of "1"	Calculates % of refrigerators purchased or manufactured between 1995 and 2000
age 1990-1994	Sites with refrigerators in this age range given indicator of "1"	Calculates % of refrigerators purchased or manufactured between 1990 and 1994
age 1985-1989	Sites with refrigerators in this age range given indicator of "1"	Calculates % of refrigerators purchased or manufactured between 1985 and 1989
age 1980-1984	Sites with refrigerators in this age range given indicator of "1"	Calculates % of refrigerators purchased or manufactured between 1980 and 1984
age 1975-1979	Sites with refrigerators in this age range given indicator of "1"	Calculates % of refrigerators purchased or manufactured between 1975 and 1979
Age 1974 and Older	Sites with refrigerators in this age range given indicator of "1"	Calculates % of refrigerators purchased or manufactured before 1975

RefFrz-2 All Pct by Manufacture Date-Estimate

Same as 'RefFrz-1 All Pct by Manufacture Date-Estimate', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable.   Use the 'Categories-RefFrz-2' Query in conjunction with this query.

RefFrz-1 All Pct by Manufacture Date-Mfr Reported

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
Basis	All sites with a manufacturer reported age given an indicator of "1"	Basis Only matched models had a manufacturer reported age
Age Estimate	Age estimate is the manufacturer date	Calculates the average manufacture age
age 1995-2000	Sites with a refrigerator in this age range given indicator of "1"	Calculates % of refrigerators manufactured between 1995 and 2000
age 1990-1994	Sites with a refrigerator in this age range given indicator of "1"	Calculates % of refrigerators manufactured between 1990 and 1994
age 1985-1989	Sites with a refrigerator in this age range given indicator of "1"	Calculates % of refrigerators manufactured between 1985 and 1989
age 1980-1984	Sites with a refrigerator in this age range given indicator of "1"	Calculates % of refrigerators manufactured between 1980 and 1984
age 1975-1979	Sites with a refrigerator in this age range given indicator of "1"	Calculates % of refrigerators manufactured between 1975 and

		1979
Age 1974 and Older	Sites with a refrigerator in this age range given indicator of "1"	Calculates % of refrigerators manufactured before 1975

RefFrz-2 All Pct by Manufacture Date-Mfr Reported

Same as 'RefFrz-1 All Pct by Manufacture Date-Mfr Reported', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable.   Use the 'Categories-RefFrz-2' Query in conjunction with this query.

RefFrz-1 CuFt Categories Avg and Bins-Estimate

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
All Types	All sites with an estimated or manuracturer reported size for their refrigerator given an indicator of "1"	Basis
Size	Estimated Size of refrigerator [CuFt]	Manufacturer Reported and Auditor Estimated Age
8 to 12_5	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 8 and 12.5 cuft
12_5 to 14_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 12.5 and 14.49 cuft
14_5 to 16_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 14.5 and 16.49 cuft
16_5 to 18_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 16.5 and 18.49 cuft
18_5 to 20_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 18.5 and 20.49 cuft
20_5 to 22_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 20.5 and 22.49 cuft
22_5 to 24_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 22.5 and 24.49 cuft
24_5 to 26_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators between 24.5 and 26.49 cuft
> 26_49	Sites with a refrigerator in this size range given indicator of "1"	Calculates % of primary refrigerators over 26.49 cuft

RefFrz-2 CuFt Categories Avg and Bins- Estimate

Same as 'RefFrz-1 CuFt Categories Avg and Bins', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable.   Use the 'Categories-RefFrz-2' Query in conjunction with this query.

RefFrz-1 Adjusted Volume

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
All Types	All sites with an estimated or manuracturer reported size for their refrigerator given an indicator of "1"	Basis
AV	Adjusted Volume of refrigerator for effiency calculation [CuFt] AV= Fresh Volume +1.63 Freezer Volume	Calculates average AV of primary refrigerators

RefFrz-1 Std Comparison Avg-Better/Worse than 2001 Std

To be included in next version of database

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
Basis	Among all sites with a UEC, value is 2001 Federal Standards, all other sites given a "0" or null	Basis
UEC rel to Std	Annual Energy Consumption	Calculates average UEC relative to 2001 Federal Standards

RefFrz-1 Std Comparison Avg-Better than Std

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
Basis	For all sites with a UEC lower than 2001 Federal Standard, the value is the 2001 Federal Standard. If UEC is higher than Standard, then null or 0.	Basis
Better than 2001 Standards	For all sites where [Basis] =2001 Federal Standard:	Calculates % above 2001 Federal Standards

	(01 Fed Std) – (UEC)	

RefFrz-1 Std Comparison Avg-Worse than Std

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
Basis	For all sites with a UEC higher than 2001 Federal Standard, the value is the 2001 Federal Standard. If UEC is lower than Standard, then null or 0.	Basis
Worse than 2001 Standards	For all sites where [Basis] =2001 Federal Standard: *(01 Fed Std) – (UEC)*	Calculates % below 2001 Federal Standards

RefFrz-2 Std Comparison Avg-Worse than Std

Same as 'RefFrz-1 Std Comparison Avg-Worse than Std', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable. Use the 'Categories-RefFrz-2' Query in conjunction with this query.

RefFrz-1 Std Comparison Bins

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
Basis	All sites with a UEC given an indicator of "1"	Basis A UEC was only obtained for matched sites
Pct Diff Std 25 to 10	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 25 and 10 percent above standards
Pct Diff Std -0_01 to -24_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between .01 and 24.9 percent below standards
Pct Diff Std -25 to -49_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 25 and 49.9 percent below standards
Pct Diff Std -50 to -74_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 50 and 74.9 percent below standards
Pct Diff Std -75 to -99_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 75 and 99.9 percent below standards
Pct Diff Std -100 to -124_9	Sites with refrigerator in this	Calculates % of refrigerators

	percentage range given a "1"	between 100 and 124.9 percent below standards
Pct Diff Std -125 to -149_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 125 and 149.9 percent below standards
Pct Diff Std -150 to -174_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 150 and 174.9 percent below standards
Pct Diff Std -175 to -199_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 175 and 199.9 percent below standards
Pct Diff Std -200 to -224_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 150 and 174.9 percent below standards
Pct Diff Std -225 to -249_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 225 and 249.9 percent below standards
Pct Diff Std -250 to -274_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 250 and 274.9 percent below standards
Pct Diff Std -275 to -299_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 275 and 299.9 percent below standards
Pct Diff Std -300 to -324_9	Sites with refrigerator in this percentage range given a "1"	Calculates % of refrigerators between 300 and 324.9 percent below standards

RefFrz-2 Std Comparison Bins

Same as 'RefFrz-1 Std Comparison Bins', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable.   Use the 'Categories-RefFrz-2' Query in conjunction with this query.

RefFrz-1 Usage Avg and Bins

Field Heading	Value	Comments
Categories-RefFrz-1.*	All Fields from the Categories-RefFrz-1 Query	
Refrigerator - Freezer.SiteID	RLW Site Identification Number	
Basis	All sites with a manuracturer reported UEC for their refrigerator given an indicator of "1"	Basis
UEC	Annual Unit Energy Consumption [kWh/Yr]	Calculates the average UEC [kWh/Yr]
UEC 450 to 599_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 450 to 599.9 kwh/year
UEC 600 to 749_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 600 to 749.9 kwh/year
UEC 750 to 899_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 750 to 899.9 kwh/year
UEC 900 to 1049_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 900 to 1049.9 kwh/year
UEC 1050 to 1199_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 1050 to 1199.9 kwh/year
UEC 1200 to 1349_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 1200 to 1349.9 kwh/year
UEC 1350 to 1499_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 1350 to 1499.9 kwh/year
UEC 1500 to 1649_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 1500 to 1649.9 kwh/year
UEC 1650 to 1799_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 1650 to 1799.9 kwh/year
UEC 1800 to 1949_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 1800 to 1949.9 kwh/year
UEC 1950 to 2099_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 1950 to 2099.9 kwh/year

UEC 2100 to 2249_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 2100 to 2249.9 kwh/year
UEC 2250 to 2399_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 2250 to 2399.9 kwh/year
UEC 2400 to 2549_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 2400 to 2549.9 kwh/year
UEC 2550 to 2699_9	Sites with a refrigerator in this usage range given indicator of "1"	Calculates % of refrigerators between 2550 to 2699.9 kwh/year

RefFrz-2 Usage Avg and Bins

Same as 'RefFrz-1 Usage Avg and Bins', except for instead of analyzing the primary refrigerator at the residence, this query is used to analyze the secondary refrigerator at the residence, if applicable.   Use the 'Categories-RefFrz-2' Query in conjunction with this query.

SELF-STANDING FREEZERS

Tables

Self Standing Freezer Table

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Freezer #_1	Primary Freezer given an indicator of "1"	
Description_1	Type of Freezer	Auditor Reported
Size of unit (cuft)_1	Size (CuFt)	Auditor or Owner estimate
Percentage of time unit is in use?_1	% of time used	Annual Average
Age (in years old)_1	Age (years)	Auditor or Owner estimate
Age Estimate_1	Manufacture Date	Mfr Reported and Estimate Combined
Manufacturer_1	Manufacturer	
Model Number_1	Model Number as recorded from On-site	
Model_Clean_1	Model Number with non alphanumerics	Used for model number to database matching
Total CuFt_1	Size (CuFt)	Manufacturer Reported
CuFt Estimate_1	Size (CuFt)	Mfr Reported and Estimate Combined
Kwh/Yr_1	Annual Energy Consumption	Manufacturer Reported
Mfr Date_1	Manufacture Date	Manufacturer Reported
type_1	Freezer Type	Manufacturer Reported
Source_1	Name of Efficiency Table that linked with model	CEC_Ref or AHAM

Queries

The following queries were developed in order to analyze the primary self standing freezers at the residences. If the user wishes to query the secondary freezers, simply view each query in design view and change all the variables from *_1 to *_2.

All of the following freezer queries should be analyzed using the 'Categories--Gen' query.

Gen Freezer-1 All Homes With 1 or 2 Freezers Query

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	Refer to Categories query documentation
Self Standing Freezer.Site ID	RLW Site Identification Number	
All Sites	All 1258 Sites given an indicator of "1"	Basis
Primary Freezer	All Sites with a Primary Freezer given an indicator of "1"	Calculates % of homes with primary freezer
Secondary Freezer	All Sites with a Secondary Freezer given an indicator of "1"	Calculates % of homes with secondary freezer

Gen Freezer-1 Type of Freezer

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer	All Freezers given an indicator of "1"	Calculates % of homes with a freezer
Chest Type	Chest Freezers given an indicator of "1"	Calculates % of homes with a chest freezer
Upright Type	Upright Freezers given an indicator of "1"	Calculates % of homes with an upright freezer

Gen Freezer-1 All Age Avg and Bins-Estimate

This query allows the user to calculate the average estimated age and percentage of freezers within age bins for all type self standing freezers. The estimated age was obtained from the efficiency databases if the unit linked, otherwise from the auditor estimate.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with Age	All Sites with freezer with estimated or mfr reported age given an indicator of "1"	Basis
Average Age1	Avg age of all freezers with estimated ages	
Age 1995-2000	Sites with freezer with age in age range	Calculates % of freezers

	given "1"	manufactured between 1985-1989
Age 1985-1989	Sites with freezer with age in age range given "1"	Calculates % of freezers manufactured between 1985 to 1989
Age 1980-1984	Sites with freezer with age in age range given "1"	Calculates % of freezers manufactured between 1985-1989
Age 1975-1979	Sites with freezer with age in age range given "1"	Calculates % of freezers manufactured between 1975-1979
Age 1974 and Older	Sites with freezer with age in age range given "1"	Calculates % of freezers manufactured after 1975

Gen Freezer-1 All Age Avg and Bins-Mfr Reported

This query allows the user to calculate the average age and percentage of freezers within age bins for all type self standing freezers for manufacturer reported ages. The manufacturer reported age was obtained from the efficiency database (AHAM). Thus, if the model linked with the CEC database only, or if it did not link at all, then no manufacturer reported age was obtained

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with Age	All Sites with freezer with **mfr** reported age given an indicator of "1"	Basis
Average Age1	Age of each freezer from **mfr** reported age	
Age 1995-2000	Sites with freezers with age in age range given "1"	Calculates % of freezers manufactured between 1995-2000
Age 1985-1989	Sites with freezers with age in age range given "1"	Calculates % of freezers manufactured between 1985 to 1989
Age 1980-1984	Sites with freezers with age in age range given "1"	Calculates % of freezers manufactured between 1980-1984
Age 1975-1979	Sites with freezers with age in age range given "1"	Calculates % of freezers manufactured between 1975-1979
Age 1974 and Older	Sites with freezers with age in age range given "1"	Calculates % of freezers manufactured after 1975

Gen Freezer-1 All Annual Usage Avg and Bins

This query allows the user to calculate the average usage and percentage of freezers within usage bins for all type self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer	All freezers matched given a "1"	Basis
2001 Standard UEC	2001 Maximum annual usage standard	Calculates % of freezers meeting

		or exceeding 2001 energy standards
1993 Standard UEC	1993 Maximum annual usage standard	Calculates % of freezers meeting or exceeding 1993 energy standards
Ann Usage	Annual Usage for all matched units (kWh/Y)	Calculates the average energy consumption
AnnUsage 225 to 424_9	Sites with freezers with usage in range given "1"	Calculates % of freezers between 225 to 424.9 kwh/year
AnnUsage 425 to 624_9	Sites with freezers with usage in range given indicator of "1"	Calculates % of freezers between 425 to 624.9 kwh/year
AnnUsage 625 to 824_9	Sites with freezers with usage in range given indicator of "1"	Calculates % of freezers between 625 to 824.9 kwh/year
AnnUsage 825 to 1024_9	Sites with freezers with usage in range given indicator of "1"	Calculates % of freezers between 825 to 1024.9 kwh/year
AnnUsage 1025 to 1224_9	Sites with freezers with usage in range given indicator of "1"	Calculates % of freezers between 1025 to 1224.9 kwh/year
AnnUsage 1225 to 1424_9	Sites with freezers with usage in range given indicator of "1"	Calculates % of freezers between 1225 to 1424.9kwh/year
AnnUsage 2025 to 2224_9	Sites with freezers with usage in range given indicator of "1"	Calculates % of freezers between 2025 to 2224.9 kwh/year

Gen Freezer Standard Comparison

This query allows the user to compare UEC to 1993 Standard

Field Heading	Value	Comments
Self Standing Freezer.SiteID	All Fields from the Categories--Gen Query	
Matched Freezer	RLW Site Identification Number	
Below 93 Standard	1 if under 93 maximum standard UEC, else 0	% of freezers below 1993 standard
Above 93 Standard	1 if over 93 maximum standard UEC, else 0	% of freezers above 1993 standard
kWh worse 93 standard	UEC kWh over 93 standard	
kWh better 93 standard	UEC kWh under 93 standard	
>15% better	Sites with freezers with usage in range given "1"	Less Than 85% of 93 Maximum UEC
10 to 15% better	Sites with freezers with usage in range given indicator of "1"	10-15% better than 1993 standards
0 to 10% better	Sites with freezers with usage in range given indicator of "1"	0-10% better than 1993 standards
0 to 10% worse	Sites with freezers with usage in range given indicator of "1"	0-10% worse than 1993 standards
10 to 25% worse	Sites with freezers with usage in range given indicator of "1"	10-25% worse than 1993 standards
25 to 50%worse	Sites with freezers with usage in range given indicator of "1"	25-50% worse than 1993 standards
50 to 100% worse	Sites with freezers with usage in range given indicator of "1"	50-100% worse than 1993 standards

Over100% worse	Sites with freezers with usage in range given indicator of "1"	Over Twice of 93 Maximum UEC

Gen Freezer-1 All Size

This query allows the user to calculate the average estimated size and percentage of freezers within size bins for all type self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with size	All Sites with freezer with estimated capacity given an indicator of "1"	Basis
Average Size	Size of each freezer (CuFt)	Calculates average size of freezer
Size 5-7_9	Sites with freezers between 5 to 7.9 CuFt given indicator of "1"	% of sites with freezers between 8-10.9 cubic feet.
Size 8-10_9	Sites with freezers between 8 to 10.9 CuFt given indicator of "1"	% of sites with freezers between 8-10.9 cubic feet.
Size 11-13_9	Sites with freezers between 11 to 13.9 CuFt given indicator of "1"	% of sites with freezers between 11-13.9 cubic feet.
Size 14-16_9	Sites with freezers between 14 to 16.9 CuFt given indicator of "1"	% of sites with freezers between 14-16.9 cubic feet.
Size 17-19_9	Sites with freezers between 17 to 19.9 CuFt given indicator of "1"	% of sites with freezers between 17-19.9 cubic feet.
Size 20-22_9	Sites with freezers between 20 to 22.9 CuFt given indicator of "1"	% of sites with freezers between 20-22.9 cubic feet.
Size 23-25_9	Sites with freezers between 23 to 25.9 CuFt given indicator of "1"	% of sites with freezers between 23-25.9 cubic feet.
Size 26-28_9	Sites with freezers between 26 to 28.9 CuFt given indicator of "1"	% of sites with freezers between 26-28.9 cubic feet.
Size 29-31_9	Sites with freezers between 29 to 31.9 CuFt given indicator of "1"	% of sites with freezers between 29-31.9 cubic feet.

Gen Freezer-1 Avg Pct of time in use

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer1	All Freezers for which "% of time in use" was answered, given an indicator of "1"	Basis
Percentage of time unit is in use?	Percentage given in whole numbers	Calculates average % of time the freezer is used.

Gen Freezer-1 Chest Age Avg and Bins-Estimate

This query allows the user to calculate the average estimated age and percentage of freezers within age bins for chest type self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with Age	All Sites with chest freezer with estimated or mfr reported age given an indicator of "1"	Basis
Age1	Avg age of all chest freezers with estimated ages	Calculates average age of chest freezers
Age 1995-2000	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1995-2000
Age 1985-1989	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1985 to 1989
Age 1980-1984	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1980-1984
Age 1975-1979	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1975-1979
Age 1974 and Older	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured after 1975

Gen Freezer-1 Chest Age Avg and Bins-Mfr Reported

This query allows the user to calculate the average age and percentage of freezers within age bins for chest type self standing freezers for manufacturer reported ages.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with Age	All Sites with chest freezer with **mfr** reported age given an indicator of "1"	Basis
Average Age1	Age of each chest freezer from **mfr** reported age	
Age 1995-2000	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1995-2000
Age 1985-1989	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1985 to 1989
Age 1980-1984	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1980-1984
Age 1975-1979	Sites with a chest freezer with age in age range given "1"	Calculates % of freezers manufactured between 1975-1979
Age 1974 and Older	Sites with a chest freezer with age in age	Calculates % of freezers

	range given "1"	manufactured after 1975

Gen Freezer-1 Chest Annual Usage Avg and Bins

This query allows the user to calculate the average usage and percentage of freezers within usage bins for all chest type self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer	All chest type freezers matched given a "1"	Basis
Ann Usage	Annual Usage for all chest matched units (kWh/Y)	Calculates the average annual energy consumption for chest freezers
1993 Standard UEC	1993 Standard Maximum UEC	Calculates % of freezers with a UEC equal to or better than 1993 standard
2001 Standard UEC	2001 Standard Maximum UEC	Calculates % of freezers with a UEC equal to or better than 2001 standard
Eff 225 to 424_9	Sites with a chest freezer with usage in range given indicator of "1"	Calculates % of chest freezers between 225 and 424.9 kWh/yr
Eff 425 to 624_9	Sites with a chest freezer with usage in range given indicator of "1"	Calculates % of chest freezers between 425 to 624.9 kWh/yr
Eff 625 to 824_9	Sites with a chest freezer with usage in range given indicator of "1"	Calculates % of chest freezers between 625 to 824.9 kWh/yr

Gen Freezer-1 Chest Size Avg and Bins

This query allows the user to calculate the average estimated size and percentage of freezers within size bins for all chest self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with size	All Sites with chest freezer with estimated capacity given an indicator of "1"	Basis
Average Size	Size of each chest freezer (CuFt)	Calculates average size of all chest freezers
Size 5-7_9	Sites with a chest freezer between 5 to 7.9 CuFt given indicator of "1"	Calculates % of freezers with size between 5 – 7.9 cubic feet.
Size 8-10_9	Sites with a chest freezer between 8 to 10.9 CuFt given indicator of "1"	Calculates % of freezers with size between 8-10.9 cubic feet.
Size 11-13_9	Sites with a chest freezer between 11 to 13.9 CuFt given indicator of "1"	Calculates % of freezers with size between 11-13.9 cubic feet.
Size 14-16_9	Sites with a chest freezer between 14 to 16.9 CuFt given indicator of "1"	Calculates % of freezers with size between 14-16.9 cubic feet.
Size 17-19_9	Sites with a chest freezer between 17 to 19.9 CuFt given indicator of "1"	Calculates % of freezers with size between 17-19.9 cubic feet.
Size 20-22_9	Sites with a chest freezer between 20 to 22.9	Calculates % of freezers with size

	CuFt given indicator of "1"	between 20-22.9 cubic feet.
Size 23-25_9	Sites with a chest freezer between 23 to 25.9 CuFt given indicator of "1"	Calculates % of freezers with size between 23-25.9 cubic feet.
Size 26-28_9	Sites with a chest freezer between 26 to 28.9 CuFt given indicator of "1"	Calculates % of freezers with size between 26-28.9 cubic feet.
Size 29-31_9	Sites with a chest freezer between 29 to 31.9 CuFt given indicator of "1"	Calculates % of freezers with size between 29-31.9 cubic feet.

Gen Freezer-1 Upright Age Avg and Bins-Estimate

This query allows the user to calculate the average estimated age and percentage of freezers within age bins for upright type self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with Age	All Sites with upright freezer with estimated or mfr reported age given an indicator of "1"	Basis
Age1	Avg age of all upright freezers with estimated ages	Calculates estimated average age of all upright freezers
Age 1995-2000	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1995-2000
Age 1985-1989	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1985 to 1989
Age 1980-1984	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1980-1984
Age 1975-1979	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1975-1979
Age 1974 and Older	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured after 1975

Gen Freezer-1 Upright Age Avg and Bins-Mfr Reported

This query allows the user to calculate the average age and percentage of freezers within age bins for upright type self standing freezers for manufacturer reported ages.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer with Age	All Sites with upright freezer with **mfr** reported age given an indicator of "1"	Basis
Average Age1	Age of each upright freezer from **mfr** reported age	Calculates average age of all upright freezers
Age 1995-2000	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1995-2000

Age 1985-1989	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1985 to 1989
Age 1980-1984	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1980-1984
Age 1975-1979	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured between 1975-1979
Age 1974 and Older	Sites with a upright freezer with age in age range given "1"	Calculates % of freezers manufactured after 1975

Gen Freezer-1 Upright Annual Usage Avg and Bins

This query allows the user to calculate the average usage and percentage of freezers within usage bins for all upright type self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	
Freezer	All upright type freezers matched given a "1"	Basis
1993 Standard UEC	1993 Standard Maximum UEC	
2001 Standard UEC	2001 Standard Maximum UEC	
Ann Usage	Annual Usage for all upright matched units (kWh/Y)	Calculates average annual energy consumption for upright freezers
AnnUsage 225 to 424_9	Sites with a upright freezer with usage in range given "1"	Calculates % of upright freezers between 225 to 424.9 kwh/year
AnnUsage 425 to 624_9	Sites with a upright freezer with usage in range given indicator of "1"	Calculates % of upright freezers between 425 to 624.9 kwh/year
AnnUsage 625 to 824_9	Sites with a upright freezer with usage in range given indicator of "1"	Calculates % of upright freezers between 625 to 824.9 kwh/year
AnnUsage 825 to 1024_9	Sites with a upright freezer with usage in range given indicator of "1"	Calculates % of upright freezers between 825 to 1024.9 kwh/year
AnnUsage 1025 to 1224_9	Sites with a upright freezer with usage in range given indicator of "1"	Calculates % of upright freezers between 1025 to 1224.9 kwh/year
AnnUsage 1225 to 1424_9	Sites with a upright freezer with usage in range given indicator of "1"	Calculates % of upright freezers between 1225 to 1424.9kwh/year
AnnUsage 2025 to 2224_9	Sites with a upright freezer with usage in range given indicator of "1"	Calculates % of upright freezers between 2025 to 2224.9 kwh/year

Gen Freezer-1 Upright Size Avg and Bins

This query allows the user to calculate the average estimated size and percentage of freezers within size bins for all upright self standing freezers.

Field Heading	Value	Comments
Categories--Gen.*	All Fields from the Categories--Gen Query	
Self Standing Freezer.Site ID	RLW Site Identification Number	

Freezer with size	All Sites with upright freezer with estimated capacity given an indicator of "1"	Basis
Average Size	Size of each upright freezer (CuFt)	Calculates average size of all upright freezers
Size 5-7_9	Sites with a upright freezer between 5 to 7.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 5 – 7.9 cubic feet.
Size 8-10_9	Sites with a upright freezer between 8 to 10.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 8-10.9 cubic feet.
Size 11-13_9	Sites with a upright freezer between 11 to 13.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 11-13.9 cubic feet.
Size 14-16_9	Sites with a upright freezer between 14 to 16.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 14-16.9 cubic feet.
Size 17-19_9	Sites with a upright freezer between 17 to 19.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 17-19.9 cubic feet.
Size 20-22_9	Sites with a upright freezer between 20 to 22.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 20-22.9 cubic feet.
Size 23-25_9	Sites with a upright freezer between 23 to 25.9 CuFt given indicator of "1"	Calculates % of vfreezers with size between 23-25.9 cubic feet.
Size 26-28_9	Sites with a upright freezer between 26 to 28.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 26-28.9 cubic feet.
Size 29-31_9	Sites with a upright freezer between 29 to 31.9 CuFt given indicator of "1"	Calculates % of upright freezers with size between 29-31.9 cubic feet.

ENVELOPE

Tables

Envelope Table

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Wall Construction Type	Exterior wall construction type	
Pct of exterior walls insulated	% of walls insulated	
Wall Insulation R-Value	R-Value of Walls	
Blown-in Attic Insulation (in)	Blown-in Attic Insulation (inches)	
Attic-Ceiling Batt Insulation (in)	Batt Attic Insulation (inches)	
Attic-Ceiling Batt Insulation R-Value	Batt Insulation (R-Value)	
Est-Blown-in Attic	Blown-in Attic Insulation (R-Value)	This R-Value was computed as

Insulation (R-Value)		3.5 times the value in the column "Blown-in attic insulation (inches)"
Est-Attic-Ceiling Batt Insulation (R-Value)	Batt Attic Insulation (R-Value)	This R-Value was determined from the CEC Residential Title-24 Manual
Est-Overall Attic Insulation (R-Value)t	Overall Attic Insulation (R-Value) in text format	This R-Value was computed as the sum of the columns "Est-Blown-in Attic Insulation (R-Value)" and "Est-Attic-Ceiling Batt Insulation (R-Value)"
Est-Overall Attic Insulation (R-Value)	Overall Attic Insulation (R-Value) in numeric format	(same as previous column, except for number format)
Floor Insulation (R-Value)	Floor Insulation (R-Value)	
Frame Type	Predominant Window Frame Type	
Number of Panes	Average Number of Panes per Window	

Queries

Categories-Envelope

Field Heading	Value	Comments
SiteID	RLW Site Identification Number	
Weight	Weight	
Wall Construction Type	Wall Construction Type of all Homes	
Utility	Electrical Provider of Residence	
Stratum	Stratum	
Type of Residence	Single Family Home, Apartment, etc.	
Total People	Total Number of Residents at Site	
Total Adults	Total Number of Adults at Site	18 and Over
Primary Language	Primary Language Spoken at Household	
Total Household Income	Annual Household Income Range	Resident Supplied
Age Range	Age Range of Residence	
Total Heated Floorspace	Square Footage Range of Residence	
Rent or Own	Ownership Status of Residence	

Envelope % of Walls Insulated

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
Basis	All sites for which '% of walls insulated' question was answered given an indicator of "1"	Basis
Pct 0	All sites for which 0% of the walls were insulated were given an indicator of "1"	Calculates % of homes with no wall insulation
Pct 25	All sites for which 25% of the walls were insulated were given an indicator of "1"	Calculates % of homes with 25% of walls insulated

Pct 50	All sites for which 50% of the walls were insulated were given an indicator of "1"	Calculates % of homes with 50% of walls insulated
Pct 75	All sites for which 75% of the walls were insulated were given an indicator of "1"	Calculates % of homes with 75% of walls insulated
Pct 100	All sites for which 100% of the walls were insulated were given an indicator of "1"	Calculates % of homes with 100% of walls insulated

Envelope Attic Insulation R-Value Bins

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
Basis	All sites with attic insulation observable given an indicator of "1"	Basis
R Value	Actual Value of R-Value for sites for which attic insulation was verifiable	Sites with no attic insulation were given an R-Value of 0. Calculates average R-value.
None	Sites with no attic insulation given indicator of "1"	Calculates % of sites with no attic insulation
R Value <11	Sites with attic insulation less than R-11 given indicator of "1"	Calculates % of sites with less than R-11 attic insulation
RVal R-11 to R-18_99	Sites with floor insulation R-Value between R-11 and R-18.99 given indicator of "1"	Calculates % of sites with attic insulation R-value between 11-18.99
RVal R-19 to R-21_99	Sites with floor insulation R-Value between R-19 and R-21.99 given indicator of "1"	Calculates % of sites with attic insulation R-value between 19-21.99
RVal R-22 to R-29_99	Sites with floor insulation R-Value between R-22 and R-29.99 given indicator of "1"	Calculates % of sites with attic insulation R-value between 22-29.99
RVal R-30 to R-37_99	Sites with floor insulation R-Value between R-30 and R-37.99 given indicator of "1"	Calculates % of sites with attic insulation R-value between 30-37.99
RVal >R-37_99	Sites with attic insulation greater than R-37.99 given indicator of "1"	Calculates % of sites with attic insulation R-value greater than 37.99

Envelope Floor Insulation R-Value

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
Basis	All sites with floor insulation observable, and not "slab on grade" given an indicator of "1"	Basis
Less than R-11	Sites with floor insulation less than R-11 given indicator of "1"	Calculates % of homes with floor insulation less than R-11
Floor R-11	Sites with floor insulation of R-11 given	Calculates % of homes with R-11

	indicator of "1"	floor insulation
Floor R-13	Sites with floor insulation of R-13 given indicator of "1"	Calculates % of homes with R-13 floor insulation
Floor R-15	Sites with floor insulation of R-15 given indicator of "1"	Calculates % of homes with R-15 floor insulation
Floor R-19	Sites with floor insulation of R-19 given indicator of "1"	Calculates % of homes with R-19 floor insulation
Floor R-30	Sites with floor insulation of R-30 given indicator of "1"	Calculates % of homes with R-30 floor insulation
No Insulation	Sites with no floor insulation given indicator of "1"	Calculates % of homes with no floor insulation

Envelope Floor Insulation Type

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
Basis	All sites with floor insulation observable, given an indicator of "1"	Basis
Less than R-11	Sites with floor insulation less than R-11 given indicator of "1"	Calculates % of homes with floor insulation less than R-11
Floor R-11	Sites with floor insulation of R-11 given indicator of "1"	Calculates % of homes with R-11 floor insulation
Floor R-13	Sites with floor insulation of R-13 given indicator of "1"	Calculates % of homes with R-13 floor insulation
Floor R-15	Sites with floor insulation of R-15 given indicator of "1"	Calculates % of homes with R-15 floor insulation
Floor R-19	Sites with floor insulation of R-19 given indicator of "1"	Calculates % of homes with R-19 floor insulation
Floor R-30	Sites with floor insulation of R-30 given indicator of "1"	Calculates % of homes with R-30 floor insulation
Floor Slab on Grade	Slab on Grade sites given indicator of "1"	% of homes with slab on grade construction
No Insulation	Sites with no floor insulation given indicator of "1"	Calculates % of homes with no floor insulation

Envelope Wall Construction Type

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
All Sites	All sites given an indicator of "1"	Basis
type 2 x 4	All sites with 2 x 4 wall construction given an indicator of "1"	% of sites with 2 x 4 wall construction
type 2 x 6	All sites with 2 x 6 wall construction given an indicator of "1"	% of sites with 2 x 6 wall construction
Masonry	All sites with masonry wall construction	% of sites with masonry wall

	given an indicator of "1"	construction
Not Observable	All sites with "not observable" wall construction given an indicator of "1"	% of sites with "not observable" wall construction

Envelope Wall Insulated?

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
Basis	All sites with wall insulation observable, given an indicator of "1"	Basis
Insulated	All sites with any wall insulation given an indicator of "1"	Calculates % sites with any level of wall insulation

Envelope Window Frame Type

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
All Sites	All sites given an indicator of "1"	Basis
Metal	All sites with metal framed windows given an indicator of "1"	Calculates % of sites with metal framed windows
Wood or Vinyl	All sites with wood or vinyl framed windows given an indicator of "1"	Calculates % of sites with wood or vinyl framed windows
Not Observable	All sites with 'not observable' framed windows given an indicator of "1"	Calculates % of sites with "not observable" windows

Envelope Window Frame Type by Number of Panes

Field Heading	Value	Comments
Categories-Envelope.*	All fields from the categories-envelope query	
Envelope.SiteID	RLW Site Identification Number	
All Sites	All sites given an indicator of "1"	Basis
Metal Single	All sites with windows that are metal framed and single paned given an indicator of "1"	Calculates % of sites with metal framed single paned windows
Metal Double	All sites with windows that are metal framed and double paned given an indicator of "1"	Calculates % of sites with metal framed double paned windows
Metal Triple	All sites with windows that are metal framed and triple paned given an indicator of "1"	Calculates % of sites with metal framed triple paned windows
Wood or Vinyl Single	All sites with windows that are wood or vinyl framed and single paned given an indicator of "1"	Calculates % of sites with Wood or Vinyl framed single paned windows
Wood or Vinyl Double	All sites with windows that are wood or vinyl framed and double paned given an indicator of "1"	Calculates % of sites with Wood or Vinyl framed double paned windows
Not Observable	All sites with frame type unknown given an	Calculates % of sites with Wood

	indicator of "1"	or Vinyl framed triple paned windows

DEMOGRAPHICS
Tables
Gen Pays Electric Bill-Non Owners

Field Heading	Value	Comments
Categories- -Gen.*	All fields from the categories--gen query	
General Information.SiteID	RLW Site Identification Number	Basis
Non Owners	All non-owners given indicator of "1"	Calculates the % of non-owners with electricity at the residence
Landlord pays Electric	1 = landlord pays electric	Calculates the % sites where the landlord pays the electric bill
Occupant pays Electric	1 = occupant pays electric	Calculates the % sites where the occupant pays the electric bill
DK who pays Electric	1 = Don't know who pays electric	Calculates the % sites where it is unknown who pays the electric bill

Gen Pays Gas Bill-Non Owners

Field Heading	Value	Comments
Categories- -Gen.*	All fields from the categories--gen query	
General Information.SiteID	RLW Site Identification Number	Basis
Non Owners	All non-owners with gas at residence given indicator of "1"	Calculates the % of non-owners with gas at the residence
Landlord pays Electric	1 = landlord pays for gas	Calculates the % sites where the landlord pays the gas bill
Occupant pays Electric	1 = occupant pays for gas	Calculates the % sites where the occupant pays the gas bill
DK who pays Electric	1 = Don't know who pays for gas	Calculates the % sites where it is unknown who pays the gas bill

Gen Owner Air Conditioner

Field Heading	Value	Comments
Categories- -Gen.*	All fields from the categories--gen query	
General Information.SiteID	RLW Site Identification Number	Basis
Non Owners	All non-owners with a/c given indicator of "1"	Basis, % of homes where renter owns the air conditioners
Landlord Owned	1 = landlord owns a/c	Calculates the % of landlord owned air conditioners

Occupant Owned	2 = occupant owns a/c	Calculates the % occupant owned air conditioners
In Common Area	3 = a/c in common area	Calculates the % of air conditioners found in a common area.

Gen Owner Dryer

Field Heading	Value	Comments
Categories- -Gen.*	All fields from the categories--gen query	
General Information.SiteID	RLW Site Identification Number	Basis
Non Owners	All non-owners with dryer given indicator of "1"	Basis, % of homes where renter owns the dryer
Landlord Owned	1 = landlord owns dryer	Calculates the % of landlord owned dryers
Occupant Owned	2 = occupant owns dryer	Calculates the % occupant owned dryers
In Common Area	3 = dryer in common area	Calculates the % of dryers found in a common area.

Gen Owner Refrigerator

Field Heading	Value	Comments
Categories- -Gen.*	All fields from the categories--gen query	
General Information.SiteID	RLW Site Identification Number	Basis
Non Owners	All non-owners with refrigerator given indicator of "1"	Calculates % of "non home owners" that own the refrigerator
Landlord Owned	1 = landlord owns refrigerator	Calculates the % landlord owned refrigerators
Occupant Owned	2 = occupant owns refrigerator	Calculates the % occupant owned refrigerators.

Gen Owner Washing Machine

Field Heading	Value	Comments
Categories- -Gen.*	All fields from the categories--gen query	
General Information.SiteID	RLW Site Identification Number	
Non Owners	All non-owners with washing machine given indicator of "1"	Calculates % of "non home owners" that own the washing machine
Landlord Owned	1 = landlord owns washing machine	Calculates the % landlord owned washing machines
Occupant Owned	2 = occupant owns washing machine	Calculates the % occupant owned washing machines
In Common Area	3 = washing machine in	Calculates the % of washing machines found

	common area	in common areas.

AHAM Refrigerator Data

The AHAM refrigerator data that was used to obtain efficiency information is included in the final database. The following table describes the data contained in the table.

AHAM_REFRIGERATORS_ALL_YEARS

Field Heading	Value	Comments
Brand	Brand Name of refrigerator	
Model No	All fields from the categories--gen query	
Type	RLW Site Identification Number	
Fresh Food Cuft	CuFt of Fresh Food Compartment	
Freezer Cuft	CuFt of Freezer Compartment	
Total Cuft	CuFt of Fresh Food and Freezer Compartment	
Year	Manufacture Date	
Kwht/Year	Unit Energy Consumption	[kWh/Year]
Pass Thru	Ice Dispenser on Unit	Checked if Ice Dispenser