Buildings Energy Data Book: 8.3 Commercial Sector Water Consumption

8.3.5 Normalized Annual End Uses of Water in Select Hotels in Western United States (Gallons per Room per Year) (1) **Budget Hotels** Luxury Hotel Range of Water Use Range of Water Use Fixture/End Use (gal/room) (gal/room) Bathtub 986 (2) 2,331 Faucets 6,297 2,196 - 2,683 Showers 10,203 - 13,724 32,453 Toilets 9,493 - 11,986 28,047 Leaks 439 - 8,007 5,351 Laundry 6047 - 12,027 74,480 Ice making 811 - 1,568 (3) 0 Other/misc. indoor 946 - 9,953 0 Total Indoor Use 37,703 - 50,696 82,770 Number of Rooms 140 - 209 297 Logged average daily use, kgal: 18.6 - 29.3 59.3 Peak instantaneous demand, gpm: 40.5 - 106.9 130.7 Benchmarking Values for Hotels 25th Percentile of Users Ν 60 - 115 Indoor Use, gal./day/occupied room 98 Cooling Use, gal./year/occupied room 97 7,400 - 41,600 Note(s): Based on four budget hotels and one luxury hotel. Three budget hotels in Southern California, one in Phoenix, AZ. Luxury hotel in Los Angeles, CA. 1) Water use data for the buildings was collected over a few days. Estimates of annual use were created by accounting for seasonal use and other variables, billing data, and interviews with building managers. 2) Based on one hotel. 3) Based on three hotels. 5) The study derived efficiency benchmarks by analyzing measured data and audit data. The benchmark was set at the lower 25th percentile of users.

Source(s): American Water Works Association Research Foundation, Commercial and Institutional End Uses of Water, 2000.

March 2012