

## Equivalent Full Load Cooling and Heating Hours

Values on low end of range assume units off during unoccupied hours in cooling season and 10°F set-back in heating. Values on high end assume no set-back control. Unoccupied ventilation air and internal loads minimized for both high and low range values.

	Nine Month Schools		Office – 8 to 5 Five Days / Week		Retail – 8 to 10 Seven Days / Week	
Annual Hours	1300 - 1500		2200 - 2400		2800 - 3600	
	Cooling	Heating	Cooling	Heating	Cooling	Heating
Atlanta	590-830	200-290	950-1360	480-690	1300-1860	380-600
Baltimore	410-610	320-460	690-1080	720-890	880-1480	570-770
Bismarck	150-250	460-500	250-540	950-990	340-780	810-900
Boston	300-510	450-520	450-970	960-1000	610-1380	760-870
Charleston, WV	430-570	310-440	620-1140	770-840	820-1600	620-730
Charlotte	510-730	200-320	940-1340	530-780	1280-1830	420-670
Chicago	280-410	390-470	420-780	820-920	550-1090	670-810
Dallas	620-890	120-200	1100-1580	340-520	1460-2090	280-440
Detroit	230-360	400-480	390-820	970-1020	530-1170	790-900
Fairbanks, AK	25-50	560-630	60-200	1050-1170	110-320	930-1090
Great Falls, MT	130-220	360-430	210-490	820-890	290-710	680-800
Hilo, HI	970-1390	0	1800-2580	15-25	2260-3370	10-15
Houston	670-1000	90-130	1240-1770	250-350	1600-2290	190-300
Indianapolis	380-560	400-480	560-1000	840-920	730-1410	690-820
Los Angeles	610-910	80-160	1140-1670	370-580	1650-2350	250-440
Louisville	470-670	290-430	770-1250	710-830	1000-1720	570-720
Madison	210-310	390-470	320-640	840-900	420-900	700-800
Memphis	580-830	170-240	950-1350	420-600	1250-1780	330-510
Miami	950-1300	10	1500-2150	35-45	1920-2740	25-40
Minneapolis	200-300	420-500	320-610	860-950	430-870	720-860
Montgomery	630-910	120-180	1060-1510	330-470	1390-1990	250-400
Nashville	520-740	250-320	830-1280	590-680	1030-1710	470-590
New Orleans	690-990	70-110	1200-1720	230-320	1570-2240	160-260
New York	360-550	350-440	540-1040	790-870	720-1480	630-760
Omaha	310-440	330-400	480-820	720-800	610-1130	600-720
Phoenix	710-1020	70-110	1130-1610	210-290	1430-2090	170-250
Pittsburgh	300-530	470-500	440-920	910-950	600-1310	750-840
Portland, ME	190-300	400-480	310-630	880-980	410-900	710-870
Richmond, VA	510-730	270-410	880-1310	660-820	1110-1770	520-710
Sacramento	600-850	220-360	1000-1430	640-990	1390-2020	480-830
Salt Lake City	410-710	520-540	510-1090	1040-1060	660-1520	830-930
Seattle	260-460	460-650	440-1200	1270-1370	710-1860	960-1170
St. Louis	390-550	280-400	680-1100	710-800	850-1500	570-700
Tampa	780-1110	40-60	1440-2000	140-190	1780-2560	100-160
Tulsa	540-770	240-300	830-1300	560-620	1030-1730	450-540

Modified from: “Development of Equivalent Full Load Heating and Cooling Hours for GCHPs Applied to Various Building Types and Locations”, ASHRAE 1120-TRP, Final Report, CDH Energy Corp., Cazenovia, NY, Sept. 2000.