

# Coolerado Heat and Mass Exchanger (HMX) World Performance Table – US Units



Coolerado manufactures a variety of air conditioners using our patented heat and mass exchangers (HMXs). Coolerado equipment may use HMX as the sole means of conditioning the air, or HMX may be used in conjunction with other cooling and dehumidification technology to meet the needs of the application.

This table models how Coolerado HMXs will perform based on a variety of outdoor ambient air conditions around the world. Air temperature and humidity must both be considered. Careful study of the data presented herein reveals that Coolerado HMX only air conditioners are appropriate for most applications in arid, semi-arid and semi-humid climates.

This performance table uses well-established data from the *ASHRAE* (American Society of Heating, Refrigeration and Air-Conditioning Engineers) *Fundamentals Handbook* Tables 1A and 1B. All locations from the ASHRAE table have been included.

All temperature calculations for the Coolerado HMX are based on testing the Department of Energy conducted on Coolerado air conditioners at the National Renewable Energy Laboratory in Golden, Colorado (at approximately 5,000 feet above sea level), testing that Pacific Gas and Electric Company did at its facility near Sacramento, California (near sea level), and testing performed at Coolerado's laboratory using their certified ANSI/ASHRAE Standard 143-2000 test chamber (one of 4 in the country). Headings at the top of each page of the table label the data contained in the column along with identifiers A through V.

**Columns A and B** represent the location of the weather monitoring station (ASHRAE column 1a). Each location has been color coded blue, light blue or gray based on the following criteria:

**Blue:** If the cells in columns O and P (or Q) in the same row are blue, then the state and the station are also blue. This indicates that a Coolerado HMX only system is appropriate for almost any commercial, residential and industrial application in that location.

**Light Blue:** The location is light blue if a Coolerado HMX only system does not satisfy the criteria to be blue, but does not have gray in columns T or U (or V). This indicates that an HMX only system is likely adequate for most residential and industrial cooling applications, but it may not be appropriate without supplemental cooling/dehumidification for comfort cooling of a commercial space like an office environment.

**Gray:** This classification is for all other locations that do not meet the criteria for the blue or light blue ratings. This indicates that a Coolerado HMX only system may be appropriate as a pre-cooler and for many industrial applications, but it would not be appropriate for comfort cooling in residential or commercial applications without supplemental cooling and/or dehumidification.

**Column C** is the elevation of the monitoring station, measured in feet above sea level.

**Columns D through L** are based on 0.4 percentile design conditions. This means that temperatures or humidities did not exceed the represented value more than 0.4 percent of the time for the minimum 12-year period of the collected weather data. A value of 0.4 percent translates to 35 hours per year. These values are generally used when designing a cooling system for a critical application that cannot tolerate small temperature or humidity fluctuations.

**Column D** represents the dry bulb temperature (the most common temperature reading) of air at the station with only 0.4 percent temperatures higher than this number (ASHRAE column 2a).

**Column E** is the mean wet bulb temperature of the readings taken at the same time as the dry bulb temperatures (ASHRAE column 2b).

**Column F** uses the air and elevation properties to calculate the temperature of air that a Coolerado HMX only system will produce when 100 cubic feet per minute (CFM) of air is passed through each HMX in the system. If there are 6 HMXs in the system like the Coolerado C60, the quantity needs to be multiplied by 6 to achieve a flow rate of 600 CFM – the calculated temperature remains the same. The calculated temperatures have been color-coded blue, light blue or gray based on the following criteria:

**Blue:** If the temperature of the product air is 72°F or less, the cell is shaded blue. A temperature of 72°F is 1°F cooler than the temperature on the cool side of the ASHRAE summer comfort zone.

**Light Blue:** If the temperature of the product air is from 73°F to 78°F, the cell is shaded light blue. A temperature of 78°F is 1°F cooler than the temperature on the warm side of the ASHRAE summer comfort zone.

**Gray:** If the temperature of the product air is 79°F or warmer, the cell is shaded gray.

**Columns G through J** are the calculated air temperatures that a Coolerado HMX will produce at 200 to 400 CFM product flow rate. Multiply the flow rate by the number of HMXs in the system to determine the total product flow of the system.

**Columns K and L** represent the high dew point temperatures of the air at the weather station. Dew point temperatures indirectly measure the absolute humidity (or humidity ratio) of the air. To be completely within the ASHRAE summer comfort zone for humidity, the dew point temperature needs to be below 63 degrees. A 63°F dew point translates to 0.012 pounds of moisture per pound of dry air at sea level. Since Coolerado HMX only based air conditioners do not add or remove any humidity from the air, the dew point temperature of the air stream leaving the HMXs will be the same as the air it takes in.

**Column K** is the calculated dew point temperature of air at the 0.4 percent wet bulb, mean dry bulb condition reported as ASHRAE evaporation design data (ASHRAE columns 3a and 3b). High wet bulb temperatures with the corresponding mean dry bulb temperatures reflect spikes in humidity that occur such as after a rainstorm, or during the “monsoon” season that occurs in some regions. The corresponding dew point temperature is calculated from the wet bulb/mean dry bulb condition and color-coded according to the following criteria:

**Blue:** If the dew point temperature is 63°F or cooler, the cell is shaded blue, representing that the conditioned air will be completely within the ASHRAE summer comfort zone for humidity.

**Light Blue:** If the dew point temperature ranges from 64 to 68 degrees, the cell is shaded purple. These humidity levels are likely tolerable for most people but may not be appropriate for comfort cooling of a commercial space like an office environment.

**Gray:** If the dew point temperature is 69 degrees or higher, the cell is shaded gray. These high humidity levels are not appropriate for comfort residential or commercial cooling applications but may be appropriate for many industrial applications.

**Column L** is the 0.4 percent dew point temperature reported at the weather station (ASHRAE column 4a). This number represents severe, short-term spikes in humidity at the weather station and is usually the most conservative number for humidity. It is appropriate to use the greater of the two values of columns K and L for special applications. Column L has the same color-coding criteria as column K.

**Columns M through Q** are based on 1.0 percentile design conditions. A value of 1.0 percent translates to 88 hours per year and typically represents short duration weather spikes that occur in the late afternoons or around storm events. This criterion is usually used when designing for commercial applications. The column descriptions and criteria for color-coding are the same as columns D through L.

**Columns Q through V** are based on 2.0 percentile design conditions, which translates to 175 hours per year. This criterion is usually used when designing for residences. The column descriptions and criteria for color-coding are the same as columns D through L.

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Algeria	Algiers	82	95	71	68	72	73	73	75	73	74	92	71	72	73	72	89	72	73	72	72	
Algeria	Annaba	13	94	71	68	72	73	73	75	76	76	90	72	73	75	73	87	73	74	73	73	
Algeria	Biskra	285	108	69	64	70	72	73	76	60	65	106	69	71	58	61	103	69	71	59	61	
Algeria	Constantine	2276	100	66	61	66	68	69	71	64	66	96	67	68	63	63	93	66	67	61	63	
Algeria	El Golea	1302	109	69	63	70	71	72	75	59	62	107	68	70	57	58	104	68	70	53	58	
Algeria	Oran	295	92	69	66	70	71	71	73	72	73	89	69	70	70	71	86	69	70	70	71	
Algeria	Tebessa	2667	99	65	60	65	66	67	70	60	64	97	64	65	59	61	94	64	65	58	61	
Argentina	Buenos Aires	65	93	73	70	74	74	75	76	72	74	90	72	73	72	71	87	71	72	70	71	
Argentina	Comodoro Rivadavia	150	87	61	58	62	63	64	65	51	57	84	60	62	52	53	80	58	60	49	53	
Argentina	Cordoba	1555	94	73	70	73	74	75	76	73	74	91	72	73	72	71	89	71	72	70	71	
Argentina	Formosa	196	98	76	73	77	77	78	80	76	78	96	76	77	77	76	94	76	77	76	76	
Argentina	Junin Airport	266	92	72	69	73	73	74	75	73	73	89	71	72	70	70	87	71	72	69	70	
Argentina	Marcos Juarez	374	95	74	71	75	75	76	77	75	76	92	74	75	73	73	90	73	74	71	73	
Argentina	Mendoza	2309	96	68	64	68	69	70	72	67	68	93	67	68	64	65	91	67	68	64	65	
Argentina	Paso De Los Libres	229	96	74	71	75	75	76	78	76	76	94	75	76	75	74	92	73	74	72	74	
Argentina	Posadas	410	97	76	73	77	77	78	79	76	77	95	76	77	75	75	93	75	76	74	75	
Argentina	Reconquista	173	96	78	76	79	79	80	81	78	79	94	77	78	77	76	91	76	77	76	76	
Argentina	Resistencia	170	98	76	73	77	78	78	80	76	77	95	76	77	75	76	93	76	77	75	76	
Argentina	Rio Gallegos	62	76	57	55	58	58	59	60	49	53	72	55	56	48	49	70	54	55	46	49	
Argentina	Rosario	82	93	74	72	75	75	76	77	75	75	90	73	74	73	72	88	72	73	72	72	
Argentina	Salta Airport	3990	89	65	61	65	66	66	68	68	69	87	66	67	68	67	84	66	67	67	67	
Argentina	San Juan	1961	100	69	64	69	71	71	74	65	68	97	68	69	64	64	94	68	69	63	64	
Argentina	San Miguel De Tucuman	1476	96	74	71	74	75	76	77	75	76	93	74	75	75	74	91	74	75	72	74	
Armenia	Yerevan	2919	96	69	65	69	70	71	73	64	65	94	69	70	61	61	91	67	68	61	61	
Ascension Island	Georgetown	259	86	75	74	75	76	76	77	75	75	85	75	76	73	74	85	75	76	74	74	
Australia	Adelaide	13	95	64	60	65	66	67	69	64	66	92	64	66	62	61	88	63	65	59	61	
Australia	Alice Springs	1774	104	65	59	65	67	68	71	69	71	102	64	66	68	67	100	64	66	66	67	
Australia	Brisbane	16	88	72	70	72	73	74	75	75	75	86	72	73	74	73	84	72	73	73	73	
Australia	Cairns	22	91	78	76	78	79	79	80	79	79	90	77	78	78	77	88	77	78	77	77	
Australia	Canberra	1893	90	63	59	63	64	65	67	61	64	87	63	64	60	60	83	62	63	59	60	
Australia	Darwin	98	93	75	73	76	76	77	78	80	81	92	76	77	79	79	91	76	77	79	79	
Australia	Kalgoorlie/Boulder	1181	102	65	60	66	67	68	71	62	65	99	64	66	60	61	95	63	65	57	61	
Australia	Learmonth	19	105	70	65	71	72	73	76	76	77	102	70	72	75	74	99	70	72	73	74	
Australia	Perth	95	99	67	63	68	69	70	72	65	67	95	66	68	63	64	91	65	67	62	64	
Australia	Port Hedland	19	105	71	67	72	73	74	77	79	80	102	71	73	78	78	100	71	73	78	78	
Australia	Sydney Intl Airport	10	90	68	65	69	70	70	72	69	71	85	67	68	69	69	82	68	69	68	69	
Australia	Townsville	19	92	76	74	76	77	78	79	79	79	91	76	77	78	77	89	76	77	77	77	
Austria	Aigen/Ennstal (Mil)	2129	82	66	64	66	67	67	68	61	63	79	64	65	61	60	76	63	64	59	60	
Austria	Graz	1138	85	69	67	69	70	70	72	67	67	82	68	69	65	64	79	65	66	62	64	
Austria	Innsbruck	1945	85	65	62	65	66	67	68	59	62	82	64	65	58	59	79	62	63	59	59	
Austria	Klagenfurt	1482	85	66	63	66	67	68	69	62	64	82	65	66	60	61	79	63	64	59	61	
Austria	Linz	1026	85	66	63	66	67	68	69	64	65	82	65	66	62	62	79	63	64	60	62	
Austria	Salzburg	1476	86	67	64	67	68	69	70	61	63	82	65	66	59	60	79	64	65	59	60	
Austria	Vienna, Hohe Warte	656	86	68	66	68	69	70	71	64	66	83	67	68	64	64	80	66	67	62	64	
Austria	Vienna, Schwechat	623	86	67	64	67	68	69	70	62	64	83	66	67	61	62	80	65	66	60	62	
Austria	Zeltweg	2237	82	66	64	66	67	67	68	61	63	79	65	66	61	60	76	63	64	59	60	
Azores	Lajes	180	80	71	70	71	72	72	73	70	71	78	71	71	70	69	77	69	70	69	69	
Bahamas	Nassau	22	91	79	77	79	80	80	81	79	79	90	78	79	78	78	89	78	79	78	78	
Bahrain	Al-Manamah	6	103	77	74	78	79	80	81	85	86	101	78	80	84	84	99	79	80	83	84	
Belarus	Babruysk (Bobruysk)	541	82	65	63	65	66	67	68	63	65	79	65	66	63	61	76	63	64	60	61	
Belarus	Homyel (Gomel')	416	83	66	64	66	67	68	69	65	65	80	65	66	63	62	77	64	65	60	62	
Belarus	Hrodna (Grodno)	442	82	66	64	66	67	68	69	63	65	78	64	65	62	61	75	63	64	59	61	
Belarus	Mahilyow (Mogilev)	633	80	66	64	66	67	67	68	64	65	77	64	65	62	61	75	63	64	60	61	
Belarus	Minsk	767	81	65	63	65	66	66	68	62	64	78	64	65	62	60	75	62	63	59	60	
Belarus	Vitsyebsk (Vitebsk)	577	80	65	63	65	66	66	67	64	65	77	64	65	62	61	74	63	64	60	61	
Belgium/Luxembourg	Antwerp	45	82	68	66	68	69	69	70	66	66	79	66	67	64	63	76	65	66	62	63	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Belgium/Luxembourg	Brussels	190	82	67	65	67	68	68	70	64	66	79	66	67	64	62	76	65	66	62	62	
Belgium/Luxembourg	Charleroi	629	82	67	65	67	68	68	69	64	65	79	65	66	63	62	76	64	65	61	62	
Belgium/Luxembourg	Florennes	980	80	66	64	66	67	67	68	63	65	77	65	66	62	62	74	63	64	62	62	
Belgium/Luxembourg	Koksijde	29	79	67	65	67	68	68	69	64	65	75	65	66	63	62	72	64	65	62	62	
Belgium/Luxembourg	Luxembourg	1243	82	65	63	65	66	66	68	62	64	79	63	64	59	60	76	62	63	60	60	
Belgium/Luxembourg	Oostende	16	77	66	65	66	67	67	68	64	65	73	65	66	63	62	70	63	63	61	62	
Belgium/Luxembourg	Saint Hubert	1827	77	64	62	64	65	65	66	62	63	74	62	63	60	59	72	61	62	58	59	
Benin	Cotonou	29	90	79	78	79	80	80	81	80	80	89	80	81	79	79	89	80	81	79	79	
Benin	Parakou	1289	98	71	67	71	73	73	75	74	75	97	71	72	74	74	95	71	72	73	74	
Bermuda	Hamilton, Bermuda	9	88	78	77	78	79	79	80	78	79	88	78	79	78	77	86	77	78	77	77	
Bolivia	Cochabamba	8303	84	56	50	55	56	56	58	54	57	83	56	56	52	55	81	56	56	52	55	
Bolivia	La Paz	13169	63	44	39	42	43	43	45	44	45	62	44	43	43	43	61	43	42	42	43	
Bosnia-Herzegovina	Banja Luka	511	92	69	66	70	70	71	73	67	68	88	69	70	66	65	85	67	68	63	65	
Brazil	Arch De Fernando	183	88	78	77	78	79	79	80	78	78	87	78	79	77	77	86	77	78	77	77	
Brazil	Belem	52	92	78	76	78	79	79	80	79	79	90	78	79	78	77	90	78	79	78	77	
Brazil	Brasilia	3480	89	65	61	65	66	67	68	68	69	88	65	66	67	68	86	65	66	67	68	
Brazil	Campinas	2168	92	73	70	73	74	74	76	73	74	90	71	72	72	72	88	72	73	71	72	
Brazil	Campo Grande	1824	95	71	67	71	72	73	75	74	75	93	71	72	73	73	92	71	72	73	73	
Brazil	Caravelas	13	89	77	75	77	78	78	79	76	77	88	77	78	76	76	87	77	78	76	76	
Brazil	Curitiba	2979	87	69	66	69	70	70	72	70	71	85	68	69	69	69	83	68	69	68	69	
Brazil	Fortaleza	82	90	78	76	78	79	79	80	78	79	90	78	79	78	77	89	78	79	77	77	
Brazil	Goiania	2450	93	67	63	67	68	69	71	72	72	92	68	69	70	70	91	68	69	69	70	
Brazil	Maceio	377	90	75	73	75	76	76	77	76	77	89	75	76	76	75	88	75	76	75	75	
Brazil	Manaus, E. Gomes A	6	97	78	76	79	79	80	81	81	81	95	78	79	80	79	94	78	79	79	79	
Brazil	Manaus, Ponta Pelada	275	94	77	75	77	78	79	80	78	79	93	78	79	77	78	92	78	79	77	78	
Brazil	Natal	170	90	78	76	78	79	79	80	78	78	90	77	78	77	77	89	77	78	77	77	
Brazil	Porto Alegre	9	95	76	74	77	77	78	79	76	76	92	75	76	73	74	90	74	75	72	74	
Brazil	Recife	62	92	78	76	78	79	79	80	77	77	91	78	79	76	77	90	78	79	76	77	
Brazil	Rio De Janeiro, Galeao	19	102	79	76	80	81	81	83	78	79	99	77	79	77	77	97	77	78	76	77	
Brazil	Salvador	19	90	78	76	78	79	79	80	78	79	88	78	79	78	77	88	78	79	77	77	
Brazil	Santarem	236	93	77	75	77	78	79	80	77	78	92	77	78	77	77	91	78	79	76	77	
Brazil	Sao Paulo	2634	89	69	66	69	70	70	72	70	71	88	69	70	69	69	86	69	70	67	69	
Brazil	Vitoria	13	93	77	75	77	78	79	80	77	78	92	77	78	76	76	90	77	78	75	76	
Brunei	Brunei Intl Airport	49	92	79	77	79	80	80	81	80	80	92	79	80	80	79	91	79	80	79	79	
Bulgaria	Botevgrad	7837	60	49	47	48	49	49	50	49	50	57	48	48	48	47	55	47	47	47	47	
Bulgaria	Burgas	91	87	72	70	72	73	73	75	71	72	84	71	72	70	68	82	69	70	68	68	
Bulgaria	Lom	108	90	74	72	74	75	76	77	70	71	87	72	73	68	68	85	71	72	67	68	
Bulgaria	Musala	9603	56	44	41	43	44	44	45	43	44	53	43	43	41	41	51	42	42	40	41	
Bulgaria	Plovdiv	606	93	70	67	71	71	72	74	66	68	90	70	71	66	65	87	69	70	64	65	
Bulgaria	Ruse	147	94	73	70	74	74	75	77	67	69	91	71	72	65	66	88	70	71	64	66	
Bulgaria	Sofia	1952	88	66	63	66	67	68	69	61	63	85	65	66	60	60	82	64	65	57	60	
Bulgaria	Varna	141	85	72	70	72	73	73	74	71	72	83	71	72	70	69	81	70	71	68	69	
Canada, AB	Calgary Intl A	3556	83	60	56	60	61	61	63	53	57	80	59	60	53	53	77	57	58	51	53	
Canada, AB	Cold Lake A	1785	82	64	61	64	65	65	67	60	62	78	62	63	58	58	75	60	61	57	58	
Canada, AB	Coronation	2595	85	62	58	62	63	64	65	58	60	82	60	61	55	56	78	59	60	53	56	
Canada, AB	Edmonton Intl A	2372	82	63	60	63	64	64	66	61	62	78	62	63	58	57	75	60	61	56	57	
Canada, AB	Fort McMurray A	1211	84	64	61	64	65	66	67	59	61	80	62	63	58	57	76	60	61	56	57	
Canada, AB	Grande Prairie A	2195	81	62	59	62	63	63	65	57	59	78	60	61	55	55	75	58	59	54	55	
Canada, AB	Lethbridge A	3048	88	61	57	61	62	63	65	57	59	84	61	62	55	55	81	60	61	52	55	
Canada, AB	Medicine Hat A	2349	90	63	59	63	64	65	67	57	60	87	62	63	54	56	84	61	62	52	56	
Canada, AB	Peace River A	1873	81	62	59	62	63	64	65	59	60	78	60	61	55	56	75	59	60	54	56	
Canada, AB	Red Deer A	2969	82	62	59	62	63	63	65	59	60	79	61	62	57	56	76	59	60	54	56	
Canada, AB	Rocky Mtn. House	3245	80	62	59	62	63	63	64	57	60	78	61	62	57	56	75	59	60	55	56	
Canada, AB	Vermilion A	2028	83	64	61	64	65	66	67	60	62	80	62	63	57	58	77	61	62	55	58	
Canada, AB	Whitecourt	2566	80	61	58	61	62	62	64	59	60	77	60	61	56	57	74	59	60	54	57	
Canada, BC	Abbotsford A	190	85	67	65	68	68	69	70	62	62	80	66	67	59	59	77	64	65	57	59	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Canada, BC	Cape St. James	302	64	59	58	59	59	59	60	58	59	62	58	58	58	57	60	57	57	57	57	
Canada, BC	Castlegar A	1624	92	64	60	64	66	66	68	58	60	88	63	64	55	57	84	62	63	53	57	
Canada, BC	Comox A	79	80	63	61	63	64	65	66	59	60	76	62	63	57	58	73	61	62	57	58	
Canada, BC	Cranbrook A	3081	88	61	57	61	62	63	65	52	57	85	60	61	52	53	81	59	60	49	53	
Canada, BC	Fort Nelson A	1253	82	62	59	62	63	64	65	57	60	78	60	61	55	56	75	59	60	53	56	
Canada, BC	Fort St. John A	2280	79	61	58	61	62	62	64	56	59	76	59	60	55	55	73	58	59	52	55	
Canada, BC	Kamloops A	1135	93	65	61	66	67	67	69	54	59	88	63	64	54	56	85	62	63	52	56	
Canada, BC	Penticton A	1129	90	65	61	65	66	67	69	58	60	87	64	65	55	57	83	63	64	54	57	
Canada, BC	Port Hardy A	72	68	59	58	59	60	60	61	56	58	65	58	58	56	56	63	57	57	56	56	
Canada, BC	Prince George A	2267	81	60	57	60	61	62	63	55	58	78	59	60	54	54	74	58	59	52	54	
Canada, BC	Prince Rupert A	112	66	58	57	58	59	59	59	58	58	63	57	57	56	56	61	56	56	55	56	
Canada, BC	Quesnel A	1788	85	62	59	62	63	64	65	55	59	81	60	61	53	56	77	59	60	53	56	
Canada, BC	Sandspit A	20	68	60	59	60	61	61	61	58	59	65	59	59	58	57	63	58	58	57	57	
Canada, BC	Smithers A	1716	81	61	58	61	62	63	64	53	57	77	59	60	53	54	73	58	59	52	54	
Canada, BC	Spring Island	322	68	60	59	60	61	61	61	58	59	66	59	59	58	57	63	58	58	57	57	
Canada, BC	Terrace A	712	83	62	59	62	63	64	65	56	58	78	60	61	54	55	74	59	60	52	55	
Canada, BC	Tofino A	79	72	62	61	62	63	63	64	57	59	68	60	61	56	57	66	58	59	56	57	
Canada, BC	Vancouver Intl A	7	76	65	64	65	66	66	67	61	62	74	64	65	60	60	71	62	63	59	60	
Canada, BC	Victoria Intl A	62	79	63	61	63	64	65	66	57	59	75	62	63	57	57	72	61	62	55	57	
Canada, BC	Williams Lake A	3084	83	59	55	59	60	61	62	50	55	79	57	58	49	51	75	56	57	47	51	
Canada, MB	Brandon A	1342	87	67	64	67	68	69	70	66	67	84	66	67	64	62	80	65	66	61	62	
Canada, MB	Churchill A	95	77	62	60	62	63	63	65	59	59	72	60	61	56	53	67	58	59	53	53	
Canada, MB	Dauphin A	1001	87	67	64	67	68	69	70	65	67	84	66	67	62	62	80	64	65	61	62	
Canada, MB	Portage La Prairie A	883	88	68	65	68	69	70	71	67	68	85	67	68	64	64	81	65	66	63	64	
Canada, MB	The Pas A	889	83	66	64	66	67	68	69	63	64	79	64	65	61	60	76	62	63	59	60	
Canada, MB	Thompson A	715	83	64	61	64	65	66	67	60	62	79	62	63	58	58	76	60	61	56	58	
Canada, MB	Winnipeg Int'l A	784	87	68	65	68	69	70	71	68	68	84	67	68	66	64	81	66	67	63	64	
Canada, NB	Charlo A	125	83	68	66	68	69	69	71	66	68	79	66	67	64	64	75	65	66	63	64	
Canada, NB	Chatham A	102	86	69	67	69	70	71	72	67	68	83	67	68	65	65	79	65	66	65	65	
Canada, NB	Fredericton A	66	86	69	67	69	70	71	72	68	68	83	68	69	66	65	79	66	67	64	65	
Canada, NB	Moncton A	233	83	68	66	68	69	69	71	68	68	80	67	68	65	65	77	65	66	65	65	
Canada, NB	Saint John A	358	78	65	63	65	66	66	67	65	66	75	64	65	63	62	72	62	63	61	62	
Canada, NL	Battle Harbour	26	65	58	57	58	58	59	59	57	57	60	55	55	53	52	58	53	53	52	52	
Canada, NL	Bonavista	89	74	65	64	65	66	66	67	65	65	71	63	64	63	61	68	62	62	61	61	
Canada, NL	Cartwright	46	75	62	60	62	63	63	64	58	59	70	59	60	57	55	67	58	59	55	55	
Canada, NL	Daniels Harbour	62	69	63	62	63	63	64	64	64	64	66	62	62	61	60	65	61	61	61	60	
Canada, NL	Deer Lake A	72	81	66	64	66	67	67	69	64	66	77	64	65	62	61	74	62	63	62	61	
Canada, NL	Gander Intl A	495	79	65	63	65	66	66	67	65	65	76	63	64	63	61	72	62	63	61	61	
Canada, NL	Goose A	160	81	63	61	64	64	65	66	60	61	77	61	62	57	57	73	60	61	55	57	
Canada, NL	Hopedale	26	70	59	58	59	60	60	61	55	57	65	57	58	54	52	61	55	55	51	52	
Canada, NL	St. John's A	459	76	65	64	65	66	66	67	66	66	73	64	65	64	62	70	63	63	62	62	
Canada, NL	Stephenville A	85	74	64	63	64	65	65	66	65	66	71	64	64	63	62	69	63	63	62	62	
Canada, NL	Wabush Lake A	1808	76	60	58	60	61	61	62	59	60	72	58	59	57	56	68	57	58	55	56	
Canada, NS	Greenwood A	92	84	69	67	69	70	70	72	69	69	80	67	68	67	66	78	66	67	66	66	
Canada, NS	Halifax Intl A	476	80	68	66	68	69	69	70	67	68	78	66	67	67	65	75	64	65	65	65	
Canada, NS	Sable Island	13	70	67	67	67	67	67	68	68	68	69	66	66	67	65	67	65	65	66	65	
Canada, NS	Shearwater A	167	78	66	64	66	67	67	68	67	68	75	64	65	65	65	72	63	64	65	65	
Canada, NS	Sydney A	203	81	68	66	68	69	69	70	68	68	78	67	68	66	65	75	65	66	65	65	
Canada, NS	Truro	131	79	69	68	69	70	70	71	68	69	77	67	68	66	66	75	66	67	66	66	
Canada, NS	Yarmouth A	141	73	66	65	66	66	67	67	67	67	71	64	64	65	63	69	63	63	62	63	
Canada, NT	Cape Parry A	56	58	53	52	53	53	53	54	49	50	54	50	50	48	45	50	47	47	44	45	
Canada, NT	Fort Smith A	666	82	63	60	63	64	65	66	58	61	78	61	62	56	57	75	60	61	54	57	
Canada, NT	Inuvik UA	223	78	60	58	60	61	62	63	54	56	75	59	60	52	52	71	57	58	51	52	
Canada, NT	Norman Wells A	243	80	62	60	62	63	64	65	57	59	77	60	61	55	56	74	59	60	53	56	
Canada, NT	Yellowknife A	676	77	60	58	60	61	62	63	56	58	74	59	60	53	53	70	57	58	53	53	
Canada, NU	Baker Lake	59	69	57	55	57	58	58	59	54	55	65	55	56	51	50	61	53	54	50	50	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Canada, NU	Cambridge Bay A	89	60	53	52	53	53	54	54	50	50	57	51	51	47	46	53	48	48	46	46	
Canada, NU	Chesterfield	36	66	54	52	54	55	55	56	47	50	60	52	53	45	46	56	50	50	45	46	
Canada, NU	Coral Harbour A	210	64	53	52	53	54	54	55	49	50	60	51	52	46	46	56	50	50	45	46	
Canada, NU	Hall Beach A	26	56	50	49	50	50	51	51	46	47	52	47	47	44	42	49	45	45	41	42	
Canada, NU	Iqaluit A (Frobisher)	108	60	50	49	50	51	51	52	44	46	57	48	49	44	42	53	46	46	41	42	
Canada, NU	Resolute A	220	50	45	44	45	45	45	46	42	42	48	43	43	39	38	44	41	41	38	38	
Canada, ON	Armstrong A	1152	81	66	64	66	67	67	68	65	67	78	65	66	63	61	75	63	64	61	61	
Canada, ON	Atikokan	1289	84	67	65	67	68	68	70	67	68	80	66	67	66	64	77	64	65	64	64	
Canada, ON	Big Trout Lake	735	79	64	62	64	65	65	66	63	64	75	62	63	61	60	72	61	62	59	60	
Canada, ON	Earlton A	797	85	69	67	69	70	70	72	67	69	81	67	68	65	65	78	65	66	63	65	
Canada, ON	Geraldton	1152	81	66	64	66	67	67	68	66	67	78	65	66	63	62	75	63	64	61	62	
Canada, ON	Gore Bay A	633	80	68	66	68	69	69	70	69	69	78	67	68	66	66	75	65	66	66	66	
Canada, ON	Kapuskasung A	745	84	67	65	67	68	69	70	66	67	80	65	66	64	62	77	64	65	62	62	
Canada, ON	Kenora A	1348	84	67	65	67	68	68	70	66	68	81	65	66	64	63	78	64	65	62	63	
Canada, ON	London A	912	85	71	69	71	72	72	73	71	71	83	70	71	69	68	80	69	70	69	68	
Canada, ON	Mount Forest	1362	83	70	68	70	71	71	72	69	70	80	68	69	67	67	77	67	68	66	67	
Canada, ON	Muskoka A	925	84	69	67	69	70	70	71	69	70	80	68	69	67	66	78	66	67	65	66	
Canada, ON	North Bay A	1217	81	67	65	67	68	68	69	67	68	78	66	67	65	65	76	64	65	64	65	
Canada, ON	Ottawa Int'l A	374	86	70	68	70	71	72	73	69	70	83	69	70	67	67	80	67	68	65	67	
Canada, ON	Sault Ste. Marie A	630	83	69	67	69	70	70	71	68	69	79	67	68	66	65	76	65	66	64	65	
Canada, ON	Simcoe	791	85	72	70	72	73	73	74	71	71	83	70	71	69	68	80	69	70	69	68	
Canada, ON	Sioux Lookout A	1280	84	67	65	67	68	68	70	66	67	80	65	66	64	63	78	63	64	62	63	
Canada, ON	Sudbury A	1142	84	67	65	67	68	69	70	66	68	81	66	67	64	64	78	64	65	62	64	
Canada, ON	Thunder Bay A	653	84	68	66	68	69	69	71	66	67	80	66	67	64	62	77	64	65	63	62	
Canada, ON	Timmins A	968	84	67	65	67	68	69	70	66	67	81	65	66	64	63	78	64	65	62	63	
Canada, ON	Toronto Int'l A	568	87	71	69	71	72	73	74	71	71	84	70	71	69	68	81	68	69	67	68	
Canada, ON	Trenton A	282	84	71	69	71	72	72	73	71	71	81	70	71	70	68	78	68	69	67	68	
Canada, ON	Wiarton A	728	82	70	68	70	71	71	72	69	70	80	69	70	67	67	77	67	68	66	67	
Canada, ON	Windsor A	623	89	73	71	73	74	75	76	73	73	86	71	72	71	70	83	70	71	70	70	
Canada, PE	Charlottetown A	177	79	69	68	69	70	70	71	68	68	77	67	68	67	65	74	65	66	65	65	
Canada, PE	Summerside A	79	79	68	67	68	69	69	70	69	68	77	66	67	67	65	74	65	66	65	65	
Canada, QC	Bagotville A	522	84	67	65	67	68	69	70	64	66	80	65	66	64	62	77	63	64	62	62	
Canada, QC	Baie Comeau A	72	75	63	61	63	64	64	65	62	62	71	61	62	60	59	69	60	61	58	59	
Canada, QC	Grindstone Island	194	73	66	65	66	66	67	67	67	67	70	65	65	66	64	68	64	64	64	64	
Canada, QC	Kuujuarapik A	39	75	61	59	61	62	62	63	58	60	70	59	60	57	54	66	57	58	53	54	
Canada, QC	Kuujuuaq A	121	74	60	58	60	61	61	62	58	58	69	57	58	55	52	65	55	56	50	52	
Canada, QC	La Grande Riviere A	640	78	62	60	62	63	63	65	61	62	75	60	61	58	57	71	58	59	55	57	
Canada, QC	Lake Eon A	1841	74	60	58	60	61	61	62	59	60	70	58	59	58	57	67	57	58	56	57	
Canada, QC	Mont Joli A	171	80	67	65	67	68	68	69	65	66	76	65	66	63	62	74	64	65	61	62	
Canada, QC	Montreal Intl A	118	85	71	69	71	72	72	73	71	70	83	70	71	69	67	80	68	69	67	67	
Canada, QC	Montreal Mirabel A	269	84	71	69	71	72	72	73	70	70	81	69	70	68	66	78	67	68	66	66	
Canada, QC	Nitchequon	1759	72	60	58	60	61	61	62	60	61	69	58	59	59	57	66	57	57	56	57	
Canada, QC	Quebec A	240	84	70	68	70	71	71	72	70	70	80	68	69	67	66	78	66	67	65	66	
Canada, QC	Riviere Du Loup	486	79	68	67	68	69	69	70	67	68	76	67	68	67	65	74	65	66	65	65	
Canada, QC	Roberval A	587	83	68	66	68	69	69	70	68	68	79	66	67	65	64	76	65	66	64	64	
Canada, QC	Schefferville A	1709	74	58	56	58	59	59	60	57	58	69	57	58	55	53	66	55	56	53	53	
Canada, QC	Sept-Iles A	180	72	60	58	60	61	61	62	61	61	69	59	60	59	58	67	58	59	57	58	
Canada, QC	Sherbrooke A	791	84	70	68	70	71	71	72	68	69	80	68	69	67	66	78	66	67	65	66	
Canada, QC	St. Hubert A	89	86	71	69	71	72	72	74	70	71	83	69	70	69	67	80	68	69	66	67	
Canada, QC	Ste. Agathe Des Monts	1296	81	68	66	68	69	69	70	69	69	78	66	67	66	65	76	65	66	64	65	
Canada, QC	Val d'Or A	1106	83	67	65	67	68	68	70	65	67	80	65	66	64	62	77	63	64	63	62	
Canada, SK	Broadview	1975	87	65	62	65	66	67	68	64	64	83	64	65	60	60	79	63	64	58	60	
Canada, SK	Estevan A	1906	90	66	62	66	67	68	70	64	66	86	65	66	62	61	83	64	65	60	61	
Canada, SK	Moose Jaw A	1893	90	64	60	64	65	66	68	61	63	87	64	65	59	59	83	62	63	56	59	
Canada, SK	North Battleford A	1798	86	64	61	64	65	66	67	61	62	82	63	64	58	58	78	61	62	56	58	
Canada, SK	Prince Albert A	1404	84	65	62	65	66	67	68	62	63	81	64	65	59	59	78	62	63	58	59	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Canada, SK	Regina A	1893	89	64	60	64	65	66	68	62	63	85	64	65	59	59	82	62	63	57	59	
Canada, SK	Saskatoon	1654	87	64	61	64	65	66	68	60	62	84	63	64	58	58	80	62	63	55	58	
Canada, SK	Swift Current A	2684	88	63	59	63	64	65	67	59	61	84	62	63	56	57	80	61	62	54	57	
Canada, SK	Uranium City A	1043	79	62	60	62	63	64	65	58	59	76	60	61	56	56	72	58	59	55	56	
Canada, SK	Wynyard	1841	85	64	61	64	65	66	67	63	64	81	63	64	59	59	78	62	63	57	59	
Canada, SK	Yorkton A	1634	86	65	62	65	66	67	68	63	64	82	64	65	60	60	79	62	63	58	60	
Canada, YT	Burwash A	2644	73	57	54	57	58	58	59	48	52	69	55	56	48	48	66	53	54	47	48	
Canada, YT	Whitehorse A	2306	77	57	54	57	58	59	60	48	52	73	55	56	46	48	69	53	54	47	48	
Canary Islands	Las Palmas	82	86	68	66	69	69	70	71	75	75	84	68	69	74	72	81	69	70	71	72	
Canary Islands	Santa Cruz De Tenerife	236	91	68	65	69	70	70	72	72	72	87	68	69	71	70	84	69	70	70	70	
Cape Verde	Sal Island	180	86	75	74	75	76	76	77	77	77	85	75	76	75	75	84	75	76	76	75	
Chile	Antofagasta	393	77	68	67	68	69	69	69	66	67	75	67	68	65	65	74	65	66	64	65	
Chile	Arica	193	83	71	69	71	72	72	73	71	71	81	69	70	70	67	79	68	69	66	67	
Chile	Concepcion	52	76	63	61	63	64	64	65	61	63	74	62	63	60	60	72	61	62	59	60	
Chile	La Serena	479	72	63	62	63	64	64	64	60	62	71	63	64	61	60	70	62	63	60	60	
Chile	Iquique	170	80	68	66	68	69	69	70	65	66	79	67	68	63	64	78	67	68	62	64	
Chile	Puerto Montt	282	73	62	61	62	63	63	64	60	61	70	61	62	59	58	68	60	61	58	58	
Chile	Punta Arenas	121	64	54	53	54	55	55	56	52	52	61	53	54	50	49	59	51	52	49	49	
Chile	Santiago	1561	89	65	62	65	66	67	69	60	61	88	65	66	59	59	86	64	65	58	59	
Chile	Temuco	393	81	64	62	64	65	66	67	60	61	78	63	64	57	58	75	61	62	56	58	
China	Anda	492	87	69	67	69	70	71	72	72	72	85	68	69	70	69	82	67	68	68	69	
China	Andirlangar	4146	98	63	57	63	64	65	67	55	60	96	62	63	53	55	93	61	62	51	55	
China	Anyang	249	94	73	70	74	74	75	77	79	79	92	74	75	77	76	90	74	75	76	76	
China	Baoding	62	94	72	69	73	74	74	76	78	78	91	72	73	76	75	89	73	74	75	75	
China	Bayan Mod	4360	91	59	53	59	60	61	63	56	59	89	58	59	53	54	86	57	58	50	54	
China	Beijing	180	94	71	68	72	73	73	75	76	77	91	71	72	76	74	89	71	72	73	74	
China	Bengbu	72	95	80	78	80	81	81	83	79	80	93	79	80	80	78	90	77	78	77	78	
China	Changchun	780	86	70	68	70	71	71	73	74	74	84	70	71	72	71	82	69	70	70	71	
China	Changsha (576790)	223	96	80	78	80	81	82	83	79	80	94	80	81	78	78	92	79	80	78	78	
China	Chengdu	1666	89	76	74	76	77	77	78	78	78	87	76	77	76	76	85	75	76	75	76	
China	Dalian	318	86	74	72	74	75	75	76	75	76	84	72	73	75	73	82	72	73	74	73	
China	Dandong	45	85	75	74	75	76	76	77	75	76	82	73	74	75	74	80	72	73	74	74	
China	Datong	3507	87	63	59	63	64	65	66	65	67	85	62	63	64	63	82	62	63	62	63	
China	Deqen	11443	67	52	48	51	51	52	53	52	53	65	52	51	51	51	63	52	52	51	51	
China	Dinghai	121	90	81	80	81	82	82	83	80	80	88	80	81	79	78	86	79	79	78	78	
China	Erenhot	3169	91	61	56	61	62	63	65	60	62	88	60	61	57	58	85	59	60	56	58	
China	Fuzhou	278	96	81	79	81	82	82	84	79	79	94	80	81	77	78	92	80	81	77	78	
China	Golmud	9215	80	52	46	50	51	52	54	44	47	78	51	50	41	43	75	50	49	38	43	
China	Guangzhou	26	94	80	78	80	81	81	82	80	80	93	79	80	78	79	91	79	80	79	79	
China	Guilin	544	94	78	76	78	79	80	81	79	79	92	78	79	78	78	91	78	79	78	78	
China	Guiyang	3523	87	70	67	70	71	71	72	70	71	85	70	71	69	69	83	70	70	69	69	
China	Hami	2424	97	66	61	66	67	68	71	61	63	94	65	66	58	58	92	64	65	55	58	
China	Hangzhou	141	96	81	79	81	82	82	84	80	81	94	80	81	79	79	92	80	81	78	79	
China	Harbin	469	87	69	67	69	70	71	72	72	73	84	68	69	72	70	82	68	69	70	70	
China	Hefei	118	95	81	79	81	82	82	83	79	80	92	80	81	80	78	90	79	80	78	78	
China	Hohhot	3494	88	64	60	64	65	66	67	66	67	85	63	64	64	63	82	62	63	62	63	
China	Jinan	190	95	73	70	74	74	75	77	77	78	92	74	75	76	75	90	73	74	76	75	
China	Jingdezhen	196	97	80	78	80	81	82	83	79	79	94	79	80	78	78	93	79	80	77	78	
China	Jinzhou	229	88	72	70	72	73	74	75	75	76	85	71	72	74	73	83	70	71	74	73	
China	Jixi	767	87	70	68	70	71	72	73	71	72	83	69	70	69	68	81	68	69	69	68	
China	Kashi	4235	92	66	62	66	67	67	69	62	65	90	65	66	61	60	88	64	65	58	60	
China	Korla	3061	95	67	63	67	68	69	71	61	63	93	65	66	59	59	90	65	66	56	59	
China	Kowloon	78	92	79	77	79	80	80	81	80	81	91	79	80	79	79	90	79	80	79	79	
China	Kunming	6207	80	63	60	62	63	64	65	65	66	78	63	63	64	65	77	63	63	64	65	
China	Lanzhou	4980	89	64	60	64	65	65	67	61	64	86	63	63	60	60	84	62	62	59	60	
China	Lhasa	11975	77	51	45	49	50	50	52	50	51	74	51	50	49	50	72	51	50	48	50	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
China	Liuzhou	318	95	78	76	78	79	80	81	78	79	94	78	79	77	78	92	78	79	77	78	
China	Longzhou	423	96	80	78	80	81	82	83	79	80	95	80	81	79	79	93	79	80	78	79	
China	Macau	193	92	81	80	81	82	82	83	81	81	90	81	82	80	80	89	80	81	79	80	
China	Mudanjiang	242	87	71	69	71	72	73	74	70	72	84	69	70	69	68	81	68	69	68	68	
China	Nanchang	164	96	80	78	80	81	82	83	81	81	94	80	81	80	79	92	80	81	78	79	
China	Nanjing	39	94	81	79	81	82	82	83	81	81	92	80	81	80	79	89	79	80	79	79	
China	Nanning	239	95	79	77	79	80	81	82	80	80	93	79	80	78	79	92	79	80	79	79	
China	Nenjiang	797	86	67	64	67	68	69	70	69	70	82	66	67	67	66	80	66	67	66	66	
China	Qingdao	252	85	74	73	74	75	75	76	77	78	83	74	75	77	76	81	74	74	76	76	
China	Qiqihar	485	87	69	67	69	70	71	72	72	72	84	69	70	70	69	82	68	69	68	69	
China	Shanghai	22	94	81	79	81	82	82	83	81	81	92	81	82	80	79	89	80	81	79	79	
China	Shantou	9	91	80	79	80	81	81	82	80	80	90	80	81	79	79	89	80	81	79	79	
China	Shaoguan	223	96	78	76	78	79	80	81	78	78	95	78	79	77	77	93	78	79	77	77	
China	Shenyang	141	88	74	72	74	75	75	76	76	75	86	73	74	73	73	84	72	73	73	73	
China	Shijiazhuang	265	95	72	69	73	74	74	76	78	78	92	72	73	77	75	90	73	74	75	75	
China	Taiyuan	2555	89	69	66	69	70	70	72	72	72	87	68	69	70	69	85	68	69	69	69	
China	Tangshan	95	90	74	72	74	75	76	77	77	77	88	73	74	76	74	86	72	73	74	74	
China	Tianjin	16	92	74	72	75	75	76	77	78	78	90	73	74	76	75	88	73	74	75	75	
China	Urumqi	3015	91	61	56	61	62	63	65	54	58	89	60	61	53	54	86	60	61	51	54	
China	Weifang	167	93	73	70	74	74	75	76	79	79	90	73	74	77	76	88	73	74	76	76	
China	Wenzhou	22	93	82	81	82	83	83	84	81	81	91	81	82	80	79	89	80	81	79	79	
China	Wuhan	75	95	81	79	81	82	82	83	81	81	93	80	81	80	79	91	80	81	78	79	
China	Xiamen	456	91	79	77	79	80	80	81	78	79	90	79	80	78	78	88	79	80	78	78	
China	Xi'an	1305	95	73	70	73	74	75	76	74	76	92	73	74	74	73	90	72	73	73	73	
China	Xining	7421	81	57	52	56	57	58	59	56	57	78	56	56	53	54	75	55	55	52	54	
China	Xuzhou	137	94	77	75	77	78	79	80	80	80	91	76	77	77	77	89	75	76	77	77	
China	Yaxian	22	91	80	79	80	81	81	82	81	81	90	80	81	80	80	89	80	81	80	80	
China	Yichang	439	96	79	77	79	80	81	82	79	80	93	79	80	78	78	91	78	79	77	78	
China	Yichun	761	86	69	67	69	70	71	72	70	70	83	67	68	68	67	80	67	68	66	67	
China	Yinchuan	3648	88	67	64	67	68	68	70	67	68	86	66	67	66	64	84	65	66	63	64	
China	Yingkou	13	86	76	75	76	77	77	78	76	76	84	74	75	74	74	83	73	74	73	74	
China	Yining	2175	91	67	63	67	68	69	71	61	63	89	66	67	60	60	86	65	66	58	60	
China	Yueyang	170	94	81	79	81	82	82	83	81	81	92	80	81	80	79	91	80	81	78	79	
China	Zhangjiakou	2381	89	65	61	65	66	67	69	69	70	87	65	66	67	66	84	64	65	65	66	
China	Zhanjiang	91	93	80	78	80	81	81	82	80	81	92	80	81	80	80	90	80	81	79	80	
China	Zhengzhou	364	94	74	71	75	75	76	77	78	79	92	74	75	78	77	90	74	75	76	77	
Colombia	Bogota	8359	70	56	53	55	56	56	57	57	57	68	56	56	56	56	68	56	56	55	56	
Cook Islands	Rarotonga Island	22	85	78	77	78	78	79	79	79	79	85	78	78	78	77	84	77	77	78	77	
Croatia	Pula	206	89	71	69	72	72	73	74	71	71	86	69	70	68	68	84	68	69	67	68	
Croatia	Split	68	91	70	67	71	71	72	74	66	68	89	69	70	65	65	86	68	69	64	65	
Croatia	Zagreb	351	88	70	68	70	71	72	73	66	68	85	70	71	66	65	83	68	69	64	65	
Cuba	Guantanamo	55	94	78	76	78	79	80	81	79	79	93	78	79	78	77	92	78	79	77	77	
Cyprus	Akrotiri	75	91	71	68	72	72	73	74	76	76	89	72	73	75	74	87	73	74	73	74	
Cyprus	Larnaca	6	93	71	68	72	73	73	75	75	76	91	72	73	74	74	89	72	73	73	74	
Cyprus	Paphos	26	88	76	74	76	77	77	78	77	77	86	76	77	76	75	85	76	77	75	75	
Czech Republic	Brno	807	85	66	63	66	67	68	69	61	64	82	65	66	61	61	79	64	65	59	61	
Czech Republic	Cheb	1545	83	65	62	65	66	67	68	61	62	80	64	65	59	59	77	62	63	57	59	
Czech Republic	Ostrava	839	85	67	65	67	68	69	70	63	64	82	65	66	61	61	78	64	65	59	61	
Czech Republic	Plzen	1194	84	67	65	67	68	68	70	63	64	81	65	66	62	61	78	64	65	60	61	
Czech Republic	Praded Mountain	4895	65	55	53	55	55	56	56	54	56	63	54	54	54	52	60	53	53	52	52	
Czech Republic	Prague	1200	84	65	62	65	66	67	68	61	63	80	64	65	61	60	77	63	64	59	60	
Czech Republic	Pribyslav	1758	81	65	63	65	66	66	67	60	62	77	64	65	61	59	74	62	63	58	59	
Denmark	Alborg	9	77	63	61	63	64	64	65	60	61	74	61	62	59	58	71	60	61	56	58	
Denmark	Copenhagen	16	77	63	61	63	64	64	65	60	61	74	62	63	59	59	71	60	61	58	59	
Denmark	Hammerodde	36	73	64	63	64	65	65	66	64	64	70	63	63	61	61	68	62	62	61	61	
Denmark	Mon Island	49	74	65	64	65	66	66	67	64	64	71	63	64	62	61	69	62	62	61	61	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Denmark	Odense	55	78	64	62	64	65	65	66	61	62	75	63	64	59	59	72	61	62	57	59	
Denmark	Skagen	22	72	66	65	66	66	67	67	66	66	69	64	64	63	62	67	63	63	63	62	
Denmark	Tirstrup	82	77	64	62	64	65	65	66	60	63	75	62	63	60	59	72	61	62	58	59	
Ecuador	Guayaquil	29	92	76	74	76	77	78	79	77	78	91	76	77	76	77	90	76	77	77	77	
Ecuador	Quito	9225	72	54	50	53	54	54	55	54	55	70	54	54	53	54	69	54	54	53	54	
Egypt	Alexandria	22	90	71	69	72	72	73	74	74	74	88	73	74	73	72	86	74	75	72	72	
Egypt	Cairo	242	100	69	65	70	71	72	74	70	72	97	69	71	69	70	95	69	71	69	70	
Egypt	Luxor	288	110	72	67	73	75	76	78	63	66	108	71	73	62	62	106	71	73	60	62	
Estonia	Kopu/Cape Ristna	29	73	64	63	64	65	65	66	64	64	70	63	63	62	60	68	61	61	59	60	
Estonia	Tallinn	144	77	64	62	64	65	65	66	63	63	74	62	63	60	59	71	61	62	58	59	
Faeroe Islands	Torshavn	127	58	54	53	54	54	54	55	54	55	56	53	53	53	53	55	53	53	52	53	
Fiji	Nadi	59	90	77	75	77	78	78	79	78	78	89	77	78	77	77	88	77	78	77	77	
Fiji	Nausori	22	88	78	77	78	79	79	80	78	79	87	78	79	77	77	86	78	79	77	77	
Finland	Helsinki	183	79	64	62	64	65	65	67	62	63	75	61	62	60	59	73	61	62	58	59	
Finland	Jyvaskyla	475	78	62	60	62	63	64	65	61	62	75	61	62	58	58	71	60	61	56	58	
Finland	Kauhava	144	77	62	60	62	63	63	65	61	62	74	61	62	59	58	70	59	60	57	58	
Finland	Kuopio	334	78	62	60	62	63	64	65	60	62	75	61	62	59	58	71	60	61	58	58	
Finland	Lahti	275	79	64	62	64	65	65	67	61	63	76	63	64	59	59	73	61	62	57	59	
Finland	Pello	275	76	61	59	61	62	62	64	58	60	72	60	61	56	56	69	58	59	55	56	
Finland	Pori	55	77	62	60	62	63	63	65	61	62	74	61	62	59	58	71	59	60	57	58	
Finland	Suomussalmi	734	76	61	59	61	62	62	63	57	60	72	60	61	56	56	69	58	59	55	56	
Finland	Tampere	637	79	62	60	62	63	64	65	60	62	76	61	62	58	58	73	60	61	56	58	
Finland	Turku	193	79	63	61	63	64	65	66	60	62	75	61	62	58	58	72	60	61	56	58	
France	Bordeaux	200	90	70	67	71	71	72	73	68	70	86	69	70	66	66	83	68	69	66	66	
France	Brest	337	78	65	63	65	66	66	67	63	65	74	65	66	61	62	71	63	64	62	62	
France	Clermont-Ferrand	1082	89	70	67	70	71	72	73	67	67	86	68	69	64	64	82	67	68	62	64	
France	Dijon	744	87	68	65	68	69	70	71	66	68	84	68	69	66	64	81	67	68	63	64	
France	Lyon	787	90	69	66	69	70	71	72	67	68	86	69	70	65	64	83	67	68	62	64	
France	Marseille	118	90	71	69	72	72	73	74	72	72	87	70	71	69	68	85	69	70	67	68	
France	Montpellier	19	90	71	69	72	72	73	74	74	75	87	70	71	73	71	84	69	70	70	71	
France	Nancy	711	86	69	67	69	70	71	72	66	67	82	67	68	64	63	79	65	66	63	63	
France	Nantes	88	86	68	66	69	69	70	71	68	68	83	68	69	66	65	79	66	67	64	65	
France	Nice	32	84	74	73	74	75	75	76	77	76	83	73	74	75	73	81	72	73	74	73	
France	Nimes	203	92	69	66	70	71	71	73	69	71	89	69	70	67	67	87	68	69	67	67	
France	Orleans	410	86	68	66	68	69	70	71	66	67	83	66	67	64	63	80	65	66	63	63	
France	Paris, De Gaulle	357	86	69	67	69	70	71	72	67	68	82	68	69	64	64	79	66	67	63	64	
France	Paris, Orly	314	86	69	67	69	70	71	72	66	67	82	67	68	64	63	79	65	66	63	63	
France	St.-Quentin	331	82	68	66	68	69	69	70	66	67	79	67	68	64	63	76	65	66	62	63	
France	Strasbourg	505	87	70	68	70	71	72	73	66	68	84	68	69	66	64	81	67	68	63	64	
France	Toulouse	501	91	70	67	71	71	72	73	68	70	88	69	70	66	66	84	68	69	65	66	
French Polynesia	Moruroa Island	9	87	79	78	79	80	80	80	78	79	86	78	79	79	78	85	78	78	78	78	
French Polynesia	Papeete, Tahiti	6	89	79	78	79	80	80	81	79	78	89	79	80	78	77	88	78	79	77	77	
Georgia	Batumi	19	82	73	72	73	74	74	75	73	73	80	72	73	72	71	79	71	72	70	71	
Georgia	K'ut'aisi (Kutaisi)	380	90	71	68	71	72	73	74	73	73	87	70	71	71	71	84	70	71	71	71	
Georgia	Sokhumi (Sukhumi)	42	84	73	72	73	74	74	75	74	74	82	73	74	73	72	80	72	73	72	72	
Georgia	Tbilisi	1532	92	70	67	70	71	72	73	67	68	89	70	71	66	65	87	69	70	64	65	
Germany	Aachen	672	83	66	64	66	67	68	69	62	64	80	65	66	62	61	77	64	65	60	61	
Germany	Ahlhorn (Ger-AFB)	184	84	65	62	66	66	67	68	62	64	80	65	66	60	61	77	64	65	59	61	
Germany	Berlin	160	86	66	63	67	67	68	69	62	64	82	65	66	61	61	79	64	65	60	61	
Germany	Bitburg	1227	84	66	63	66	67	68	69	62	64	80	65	66	62	61	77	64	65	60	61	
Germany	Bremen	16	82	66	64	66	67	68	69	63	65	79	65	66	61	61	76	63	64	61	61	
Germany	Bremerhaven	36	81	66	64	66	67	67	69	64	65	77	64	65	62	62	73	63	64	61	62	
Germany	Dresden	741	85	66	63	66	67	68	69	62	64	82	65	66	60	61	78	63	64	59	61	
Germany	Dusseldorf	144	85	67	65	68	68	69	70	63	65	82	65	66	61	62	79	64	65	61	62	
Germany	Eggebek (Ger-Navy)	72	80	65	63	65	66	66	68	60	63	77	63	64	60	59	73	62	63	59	59	
Germany	Ehrenberg	3034	75	62	60	62	63	63	64	60	60	72	60	60	58	57	69	59	59	56	57	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Germany	Frankfurt Am Main	370	87	67	64	68	68	69	70	63	65	83	66	67	60	62	80	64	65	60	62	
Germany	Grafenwohr	1361	85	66	63	66	67	68	69	62	63	82	66	67	60	61	79	64	65	59	61	
Germany	Greifswald	19	81	66	64	66	67	67	69	63	65	77	65	66	61	61	74	63	64	60	61	
Germany	Hamburg	52	82	66	64	66	67	68	69	63	64	79	64	65	61	61	75	63	64	59	61	
Germany	Hannover	177	84	67	65	67	68	69	70	64	65	80	65	66	62	61	77	64	65	60	61	
Germany	Heidelberg	357	90	69	66	70	70	71	72	64	66	86	67	68	62	63	83	66	67	60	63	
Germany	Hof	1863	81	64	61	64	65	65	67	61	62	77	62	63	59	59	74	61	62	57	59	
Germany	Husum (Ger-AFB)	121	79	64	62	64	65	65	67	63	64	76	64	65	61	61	72	62	63	59	61	
Germany	Kap Arkona	134	74	65	64	65	66	66	67	63	64	71	64	64	62	61	69	62	62	60	61	
Germany	Kiel/Holtenau (Ger-Navy)	102	78	64	62	64	65	65	66	61	62	75	63	64	59	59	72	62	63	57	59	
Germany	Koln	324	85	67	65	67	68	69	70	63	65	82	65	66	61	62	79	64	65	59	62	
Germany	Lahr	511	86	69	67	69	70	71	72	66	67	84	68	69	63	64	80	66	67	63	64	
Germany	Landsberg (Ger-AFB)	2060	83	66	63	66	67	67	69	60	62	79	64	65	59	59	77	63	64	59	59	
Germany	Leck (Ger-AFB)	43	79	65	63	65	66	66	67	62	63	76	63	64	58	59	72	62	63	59	59	
Germany	Leipzig	436	85	66	63	66	67	68	69	62	64	82	65	66	62	61	78	64	65	59	61	
Germany	Memmingen (Ger-AFB)	2113	83	66	63	66	67	67	69	60	61	80	65	66	58	59	77	63	64	59	59	
Germany	Munich	1735	84	66	63	66	67	67	69	61	63	81	64	65	60	60	78	63	64	60	60	
Germany	Neuburg (Ger-AFB)	1270	85	66	63	66	67	68	69	61	63	81	65	66	59	59	79	64	65	59	59	
Germany	Nordholz (Ger-Navy)	102	81	65	63	65	66	67	68	62	64	77	64	65	60	60	74	62	63	60	60	
Germany	Ramstein (US-AFB)	780	86	68	66	68	69	70	71	64	65	83	66	67	61	61	80	65	66	60	61	
Germany	Sollingen (Can-AFB)	419	87	69	67	69	70	71	72	66	67	84	68	69	63	64	81	66	67	63	64	
Germany	Stuttgart	1374	84	66	63	66	67	68	69	62	63	81	65	66	60	60	78	63	64	59	60	
Gibraltar	North Front	16	88	69	67	70	70	71	72	72	72	85	68	69	71	71	82	68	69	70	71	
Greece	Andravidia	39	91	70	67	71	71	72	74	72	73	89	71	72	70	70	87	71	72	69	70	
Greece	Athens	49	93	69	66	70	71	71	73	71	71	91	68	70	68	68	89	68	69	67	68	
Greece	Elefsis (Hel-AFB)	102	97	70	66	71	72	73	75	68	70	95	68	70	67	66	92	68	70	64	66	
Greece	Iraklion	127	88	66	63	67	68	68	70	71	71	86	67	68	70	68	84	68	69	69	68	
Greece	Larisa	242	97	69	65	70	71	72	74	62	66	93	68	70	61	64	91	68	70	61	64	
Greece	Preveza	13	88	71	69	72	72	73	74	73	74	86	71	72	72	72	84	72	73	71	72	
Greece	Rodhos	36	90	71	69	72	72	73	74	74	74	87	71	72	72	72	86	70	71	71	72	
Greece	Soudha	495	93	66	62	67	68	69	70	68	70	90	67	68	67	67	88	66	67	66	67	
Greece	Thessaloniki	13	92	70	67	71	72	72	74	67	69	90	69	70	67	66	88	69	70	65	66	
Greenland	Dundas, Thule Ab	193	54	44	43	44	45	45	46	36	39	51	43	44	35	36	48	41	41	35	36	
Greenland	Godthab	229	57	49	48	49	50	50	50	46	48	54	47	47	44	44	51	46	46	44	44	
Greenland	Kangerlussuaq	173	65	51	49	51	52	52	53	42	45	63	50	51	41	43	60	49	50	40	43	
Greenland	Narsarsuaq	85	65	50	48	50	51	51	53	45	49	62	49	50	45	46	60	47	48	44	46	
Guam	Andersen AFB (Guam)	606	88	79	78	79	80	80	80	79	80	87	79	80	78	78	87	78	79	78	78	
Hungary	Budapest	606	90	69	66	70	70	71	72	64	65	86	68	69	61	63	84	66	67	61	63	
Hungary	Debrecen	367	88	71	69	71	72	73	74	66	67	85	70	71	66	64	82	68	69	63	64	
Hungary	Nagykanizsa	462	87	70	68	70	71	72	73	67	68	84	69	70	65	65	81	68	69	64	65	
Hungary	Pecs	666	88	70	68	70	71	72	73	66	67	86	69	70	64	64	83	68	69	63	64	
Hungary	Siofok	354	86	71	69	71	72	72	73	69	69	83	70	71	67	66	80	69	70	66	66	
Hungary	Szombathely	725	86	69	67	69	70	71	72	66	67	83	68	69	64	64	80	67	68	63	64	
Iceland	Akureyri	88	66	56	55	56	57	57	58	52	54	63	54	55	50	49	61	53	54	48	49	
Iceland	Kenavik	177	59	52	51	52	52	53	53	53	52	57	51	51	50	50	55	51	51	49	50	
Iceland	Raufarhofn	32	60	53	52	53	53	54	54	51	51	56	51	51	49	48	54	50	50	48	48	
Iceland	Reykjavik	200	60	53	52	53	53	54	54	51	53	58	52	52	51	50	56	51	51	50	50	
India	Ahmadabad	180	108	74	70	75	76	77	80	81	82	106	74	76	80	80	103	75	77	79	80	
India	Bangalore	3021	94	67	63	67	68	69	71	70	72	92	67	68	70	70	91	67	68	69	70	
India	Bombay	45	95	73	70	74	75	75	77	80	80	93	74	75	79	79	92	75	76	79	79	
India	Calcutta	19	99	78	75	79	79	80	82	82	83	97	79	80	82	82	95	79	80	81	82	
India	Cuddalore	39	99	78	75	79	79	80	82	82	82	98	78	79	81	81	96	78	79	80	81	
India	Goa/Panaji	196	93	77	75	77	78	79	80	82	81	92	77	78	80	79	91	77	78	79	79	
India	Hyderabad	1788	105	71	66	71	73	74	76	73	75	103	71	73	72	73	101	71	73	72	73	
India	Jaipur	1279	108	69	63	70	71	72	75	78	79	105	69	71	78	77	103	69	71	76	77	
India	Madras	52	101	77	74	78	79	79	81	81	81	99	77	79	80	80	97	77	78	80	80	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
India	Nagpur	1017	110	71	66	72	73	75	77	77	78	108	71	73	76	77	106	70	72	76	77	
India	New Delhi	708	107	72	67	73	74	75	78	79	80	105	72	74	79	79	103	73	75	78	79	
India	Poona	1833	100	67	62	67	69	70	72	73	74	99	67	69	72	72	97	67	69	71	72	
India	Sholapur	1571	105	71	66	71	73	74	76	76	77	104	71	73	73	74	102	71	73	73	74	
India	Trivandrum	209	92	78	76	78	79	79	80	79	79	91	78	79	79	78	90	78	79	78	78	
Indian Ocean Islands	Diego Garcia Isl.	9	90	80	79	80	81	81	82	80	81	89	79	80	79	79	88	79	80	78	79	
Ireland	Belmullet	32	70	62	61	62	63	63	63	62	62	66	61	61	60	59	64	60	60	60	59	
Ireland	Birr	236	76	64	62	64	65	65	66	61	63	72	63	64	61	60	69	61	62	59	60	
Ireland	Claremorris	226	73	64	63	64	65	65	66	62	63	70	62	63	60	60	67	61	61	60	60	
Ireland	Clones	291	74	64	63	64	65	65	66	61	62	71	62	63	60	59	68	61	61	59	59	
Ireland	Cork	531	71	62	61	62	63	63	63	61	62	68	61	61	61	60	66	60	60	59	60	
Ireland	Dublin	278	72	63	62	63	64	64	65	61	62	69	61	62	61	59	67	60	60	58	59	
Ireland	Kilkenny	209	76	64	62	64	65	65	66	61	63	72	62	63	61	60	70	61	62	59	60	
Ireland	Malin	82	67	61	60	61	61	62	62	60	60	65	60	60	59	58	63	59	59	57	58	
Ireland	Mullingar	341	74	64	63	64	65	65	66	62	63	70	62	63	60	60	67	61	61	60	60	
Ireland	Rosslare	82	68	62	61	62	62	63	63	61	62	66	61	61	60	59	64	60	60	59	59	
Ireland	Shannon	65	75	64	63	64	65	65	66	61	63	71	63	64	61	60	68	61	61	59	60	
Ireland	Valentia Observatory	45	71	63	62	63	64	64	64	63	63	68	62	62	62	61	66	61	61	60	61	
Israel	Jerusalem	2473	89	65	61	65	66	67	68	65	67	86	64	65	65	65	84	63	64	64	65	
Israel	Lod	160	94	69	66	70	71	71	73	75	75	90	72	73	73	73	88	72	73	73	73	
Israel	Ovda (Isr-AFB/Civ)	1417	100	65	60	66	67	68	70	67	68	97	65	67	64	64	95	65	67	62	64	
Israel	Tel Aviv-Yafo	13	88	69	67	70	70	71	72	76	76	86	74	75	75	74	85	74	75	73	74	
Italy	Bologna/Borgu (AFB)	138	93	75	73	76	76	77	78	73	73	90	73	74	70	70	88	72	73	70	70	
Italy	Brindisi	32	90	73	71	74	74	75	76	79	79	86	74	75	78	75	84	75	76	75	75	
Italy	Catania	55	95	72	69	73	74	74	76	77	77	91	73	74	76	74	89	72	73	73	74	
Italy	Genova	9	86	72	70	72	73	73	74	73	74	84	72	73	73	72	82	72	73	72	72	
Italy	Messina	167	89	72	70	72	73	74	75	77	77	88	73	74	76	75	86	74	75	75	75	
Italy	Milan, Linate	337	89	73	71	73	74	75	76	73	73	87	72	73	70	70	85	71	72	69	70	
Italy	Milan, Malpensa	692	90	74	72	74	75	75	77	74	74	87	73	74	71	70	85	72	73	71	70	
Italy	Naples	236	92	73	70	74	74	75	76	77	77	89	73	74	75	73	87	73	74	73	73	
Italy	Palermo	111	92	71	68	72	72	73	75	78	79	88	73	74	77	76	86	75	76	76	76	
Italy	Perugia	672	92	70	67	71	71	72	74	67	69	90	69	70	67	66	86	69	70	64	66	
Italy	Pisa	3	89	72	70	73	73	74	75	73	74	87	71	72	72	71	85	71	72	69	71	
Italy	Rome	9	87	74	72	74	75	75	76	78	77	86	74	75	77	75	84	74	75	74	75	
Italy	Ronchi Legionari Ab	39	91	72	70	73	73	74	75	73	74	88	71	72	70	70	86	71	72	68	70	
Italy	Torino	941	87	72	70	72	73	73	74	72	72	85	71	72	71	70	83	70	71	69	70	
Italy	Venice	19	87	74	72	74	75	75	76	75	75	85	73	74	72	71	83	71	72	71	71	
Jamaica	Kingston	29	92	78	76	78	79	79	80	78	79	91	78	79	77	77	90	78	79	76	77	
Jamaica	Montego Bay	9	90	79	78	79	80	80	81	77	78	90	79	80	77	77	89	78	79	76	77	
Japan	Aomori	9	86	74	72	74	75	75	76	73	74	83	73	74	71	71	80	71	72	71	71	
Japan	Asahikawa	380	86	73	71	73	74	74	75	70	72	82	70	71	70	68	80	68	69	68	68	
Japan	Atgusi	213	90	77	75	77	78	78	79	76	77	88	76	77	76	75	86	76	77	75	75	
Japan	Fukuoka	39	93	77	75	77	78	79	80	76	77	91	78	79	76	75	88	77	78	75	75	
Japan	Hakodate	118	82	73	72	73	74	74	75	73	73	80	72	73	71	70	77	71	71	70	70	
Japan	Hamamatsu	157	90	76	74	76	77	77	78	77	78	88	76	77	77	77	86	76	77	77	77	
Japan	Hiroshima	173	91	78	76	78	79	79	80	76	77	89	77	78	75	76	87	77	78	76	76	
Japan	Hyakuri (Jasdf)	114	89	78	77	78	79	79	80	76	77	86	77	78	76	75	84	76	77	75	75	
Japan	Kadena	147	92	81	80	81	82	82	83	81	81	91	81	82	80	80	90	80	81	80	80	
Japan	Kagoshima	16	91	78	76	78	79	79	80	78	78	90	78	79	77	77	88	77	78	77	77	
Japan	Kumamoto	127	92	78	76	78	79	79	80	77	78	91	77	78	76	76	89	77	78	76	76	
Japan	Maebashi	370	92	77	75	77	78	78	79	74	75	90	76	77	73	73	87	75	76	73	73	
Japan	Maizuru	72	91	77	75	77	78	78	79	76	76	89	77	78	75	74	87	76	77	74	74	
Japan	Matsumoto	2004	89	72	69	72	73	73	75	70	71	87	72	73	69	69	84	71	72	68	69	
Japan	Matsuyama	111	91	77	75	77	78	78	79	75	76	89	76	77	74	74	87	76	77	74	74	
Japan	Miho (Civ/Jasdf)	29	90	78	76	78	79	79	80	76	77	88	77	78	76	75	86	76	77	75	75	
Japan	Miyako Jima Island	134	90	80	79	80	81	81	82	80	81	89	80	81	79	79	88	80	81	79	79	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Japan	Morioka	515	87	75	73	75	76	76	77	73	74	84	73	74	72	72	82	71	72	72	72	
Japan	Nagasaki	114	90	77	75	77	78	78	79	78	79	88	78	79	77	77	86	77	78	76	77	
Japan	Nagoya	55	93	77	75	77	78	79	80	76	77	90	76	77	75	75	88	75	76	74	75	
Japan	Naha	26	90	80	79	80	81	81	82	80	81	88	80	81	79	79	88	80	81	79	79	
Japan	Naze	22	90	79	78	79	80	81	81	79	79	89	79	80	78	78	88	79	80	78	78	
Japan	New Toyko Intl A	144	89	78	77	78	79	79	80	76	77	87	78	79	76	75	85	76	77	75	75	
Japan	Niigata	22	90	77	75	77	78	78	79	75	76	88	76	77	74	74	85	75	76	73	74	
Japan	Nyutabaru (Jasdf)	269	90	78	76	78	79	79	80	77	78	88	78	79	77	77	86	77	78	76	77	
Japan	Oita	42	91	78	76	78	79	79	80	76	77	89	77	78	75	75	87	77	78	76	75	
Japan	Osaka	49	93	77	75	77	78	79	80	76	77	91	76	77	75	75	89	75	76	75	75	
Japan	Owase	88	90	76	74	76	77	77	78	75	76	87	76	77	76	75	85	76	77	75	75	
Japan	Sapporo	62	84	73	72	73	74	74	75	71	72	81	71	72	70	69	78	69	70	68	69	
Japan	Sendai	141	86	75	74	75	76	76	77	75	75	84	74	75	74	73	81	73	74	73	73	
Japan	Shimonoseki	62	88	77	76	77	78	78	79	77	77	87	77	78	76	75	85	76	77	75	75	
Japan	Shizuhama (Jasdf)	32	91	79	77	79	80	80	81	77	79	89	78	79	64	77	86	77	78	77	77	
Japan	Tosashimizu	108	86	78	77	78	79	79	79	79	79	85	78	78	79	78	83	78	78	78	78	
Japan	Toyko Intl Airport	26	91	78	76	78	79	79	80	77	77	88	77	78	77	76	86	77	78	76	76	
Japan	Wakkanai	36	77	71	70	71	71	72	72	70	71	74	69	69	68	67	72	68	68	68	67	
Jordan	Amman	2536	95	65	60	65	66	67	69	66	68	92	65	66	65	65	89	64	65	62	65	
Kazakhstan	Almaty (Alma Ata)	2778	91	65	61	65	66	67	69	58	62	89	64	65	57	58	86	63	64	56	58	
Kazakhstan	Aqmola (Tselinograd)	1141	89	64	60	64	65	66	68	60	63	85	62	63	58	59	82	62	63	56	59	
Kazakhstan	Aqtobe (Aktyubinsk)	744	93	67	63	68	69	69	71	60	64	90	65	67	58	60	86	64	65	58	60	
Kazakhstan	Atyrau (Gur'yev)	-49	97	68	64	69	70	71	73	65	68	94	67	69	63	64	91	66	68	62	64	
Kazakhstan	Oral (Ural'sk)	118	93	67	64	68	69	70	71	62	65	89	66	68	60	62	86	65	66	59	62	
Kazakhstan	Pavlodar	403	90	65	62	66	67	67	69	61	65	87	65	66	60	61	84	63	64	59	61	
Kazakhstan	Qaraghandy (Karaganda)	1820	89	61	57	61	62	63	65	58	61	85	61	62	55	57	82	60	61	53	57	
Kazakhstan	Qostanay (Kustanay)	511	90	66	63	67	68	68	70	62	65	86	65	66	60	61	83	64	65	59	61	
Kazakhstan	Semey (Semipalatinsk)	643	91	66	63	67	68	68	70	60	64	87	64	65	59	61	84	64	65	59	61	
Kazakhstan	Zhambyl (Dzhambul)	2142	96	64	59	64	66	67	69	56	60	93	64	65	52	56	90	63	64	52	56	
Kenya	Arisa	482	99	74	71	75	76	76	78	75	76	98	74	76	74	75	97	74	75	73	75	
Kenya	Ksumu	3759	90	66	62	66	67	67	69	68	69	89	66	67	67	67	87	67	68	67	67	
Kenya	Lodwar	1689	100	69	64	69	71	72	74	71	73	99	69	71	69	71	98	69	71	69	71	
Kenya	Nairobi	5328	84	60	56	59	60	61	63	62	63	83	60	60	61	62	81	60	60	60	62	
Kenya	Nakuru	6236	84	57	52	56	57	58	60	59	61	83	57	57	59	59	82	57	57	57	59	
Korea, North	Anju	88	86	75	74	75	76	76	77	75	76	83	74	75	74	73	83	73	74	73	73	
Korea, North	Changjin	3546	77	65	63	65	65	66	67	67	67	74	63	63	65	64	72	62	62	63	64	
Korea, North	Ch'ongjin	141	81	71	70	71	72	72	73	72	73	78	70	71	72	70	76	69	69	70	70	
Korea, North	Haeju	265	86	75	74	75	76	76	77	76	76	84	73	74	74	74	82	72	73	74	74	
Korea, North	Hamhung	124	87	73	71	73	74	74	75	75	74	84	72	73	72	72	81	71	72	72	72	
Korea, North	Namp'o	154	85	76	75	76	77	77	78	76	76	83	75	76	76	74	82	73	74	75	74	
Korea, North	P'yongyang	124	87	75	73	75	76	76	77	76	76	85	74	75	74	74	83	72	73	73	74	
Korea, North	Sinuiju	22	87	75	73	75	76	76	77	75	76	84	73	74	74	74	82	72	73	74	74	
Korea, North	Wonsan	118	88	75	73	75	76	76	77	76	75	85	72	73	74	72	82	71	72	72	72	
Korea, South	Cheju	87	89	78	77	78	79	79	80	81	81	86	79	79	78	78	85	78	78	77	78	
Korea, South	Inch'on	229	87	76	75	76	77	77	78	75	76	84	74	75	74	74	82	73	74	73	74	
Korea, South	Kangnung	88	90	75	73	75	76	76	78	75	75	87	74	75	73	73	85	72	73	72	73	
Korea, South	Kwangju	236	90	78	76	78	79	79	80	78	78	88	76	77	76	76	85	75	76	75	76	
Korea, South	Osan	39	90	78	76	78	79	79	80	77	78	88	76	77	76	75	86	75	76	75	75	
Korea, South	Seoul	62	89	77	75	77	78	78	79	78	79	86	75	76	76	76	84	74	75	76	76	
Korea, South	Taegu	200	92	78	76	78	79	79	80	76	77	90	76	77	75	74	87	74	75	74	74	
Korea, South	Taejon	255	90	76	74	76	77	77	78	77	77	88	75	76	75	75	86	74	75	73	75	
Korea, South	Ulsan	108	91	78	76	78	79	79	80	77	77	89	77	78	75	76	86	76	77	76	76	
Kuwait	Kuwait	180	117	69	63	70	72	74	77	78	79	115	69	72	73	70	113	68	71	68	70	
Kyrgyzstan	Bishkek (Frunze)	2083	95	67	63	67	68	69	71	59	63	93	65	66	59	60	90	65	66	56	60	
Kyrgyzstan	Tianshan (Mtn Stn)	11856	57	42	38	41	41	42	43	37	40	54	41	40	35	36	51	39	38	35	36	
Latvia	Liepaja	26	76	64	62	64	65	65	66	65	64	73	62	63	62	61	70	62	63	60	61	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Latvia	Riga	9	79	65	63	65	66	66	67	63	65	76	64	65	63	61	73	62	63	60	61	
Libya	Banghazi	433	99	72	68	73	74	75	76	74	75	95	71	73	72	72	92	70	71	71	72	
Libya	Tripoli	265	107	76	72	77	78	79	81	75	76	103	74	76	72	73	100	73	75	71	73	
Liechtenstein	Vaduz	1519	83	67	65	67	68	68	69	62	64	80	65	66	62	61	78	64	65	60	61	
Lithuania	Kaunas	246	80	67	65	67	68	68	69	65	65	77	65	66	63	62	74	63	64	61	62	
Lithuania	Klaipeda	32	77	65	63	65	66	66	67	64	65	73	64	65	62	61	70	62	63	61	61	
Lithuania	Vilnius	511	81	65	63	65	66	67	68	63	64	78	64	65	62	61	75	62	63	60	61	
Macedonia	Skopje	784	95	68	64	69	70	70	72	62	65	92	68	69	62	62	89	67	68	59	62	
Madeira Islands	Funchal	180	81	69	67	69	70	70	71	70	70	79	69	70	69	68	77	68	69	67	68	
Malaysia	George Town	13	91	79	77	79	80	80	81	80	80	90	78	79	79	79	90	78	79	79	79	
Malaysia	Kota Baharu	16	91	79	77	79	80	80	81	79	79	90	79	80	77	78	90	79	80	78	78	
Malaysia	Kuala Lumpur	72	94	78	76	78	79	80	81	78	79	93	78	79	77	78	92	78	79	77	78	
Malaysia	Kuantan	52	92	79	77	79	80	80	81	78	79	91	79	80	77	78	90	79	80	77	78	
Malaysia	Kuching	88	93	79	77	79	80	80	81	78	79	92	78	79	77	77	91	78	79	77	77	
Malaysia	Malacca	29	92	78	76	78	79	79	80	79	79	91	78	79	79	78	90	78	79	78	78	
Malaysia	Miri	59	90	79	78	79	80	80	81	80	80	89	79	80	79	79	89	79	80	79	79	
Malaysia	Sitiawan	26	92	79	77	79	80	80	81	78	79	91	79	80	78	78	90	79	80	77	78	
Mali	Bamako	1250	104	69	64	70	71	72	75	75	77	103	69	71	74	75	101	69	71	75	75	
Malta	Luqa	298	92	71	68	72	72	73	75	75	75	88	72	73	74	73	86	72	73	72	73	
Marshall Islands	Kwajaiein Atoll	26	89	79	78	79	80	80	81	79	79	88	79	80	78	78	88	79	80	78	78	
Mauritania	Nouadhibou	9	92	69	66	70	71	71	73	73	74	88	69	70	71	70	86	69	70	70	70	
Mauritania	Nouakchott	9	107	70	65	71	73	74	76	79	79	103	69	71	78	77	100	69	71	77	77	
Mexico	Acapulco	16	92	80	78	80	81	81	82	80	79	92	80	81	78	79	91	80	81	78	79	
Mexico	Merida	32	100	76	73	77	78	78	80	78	78	98	76	78	77	77	95	76	77	76	77	
Mexico	Mexico City	7329	84	57	52	56	57	58	60	57	59	82	57	57	56	57	80	56	56	54	57	
Mexico	Puerto Vallarta (766010)	19	92	81	80	81	82	82	83	81	81	91	81	82	80	79	90	80	81	78	79	
Mexico	Tampico (765491)	78	92	80	78	80	81	81	82	81	82	90	80	81	80	79	90	80	81	79	79	
Mexico	Veracruz	45	94	80	78	80	81	81	82	79	79	92	80	81	78	78	91	80	81	77	78	
Micronesia	Chuuk Intl/Moen	7	88	80	79	80	81	81	81	79	79	88	80	81	79	78	87	79	80	78	78	
Midway Island	Midway Island NAF	13	87	75	73	75	76	76	77	75	75	86	75	76	73	74	86	75	76	73	74	
Moldova	Chisinau (Kishinev)	590	86	67	64	67	68	69	70	65	66	84	66	67	62	63	81	65	66	62	63	
Mongolia	Ulaanbataar	4317	82	60	56	60	61	61	63	57	58	78	59	60	55	55	75	58	58	52	55	
Mongolia	Ulaangom	3070	82	61	58	61	62	62	64	55	58	79	60	61	54	54	77	59	60	53	54	
Morocco	Al Hoceima	45	87	73	71	73	74	74	75	75	76	84	72	73	74	73	82	72	73	73	73	
Morocco	Casablanca	203	85	72	70	72	73	73	74	73	74	81	72	73	72	72	79	72	72	71	72	
Morocco	Casablanca/Nouasser	675	96	72	69	73	74	74	76	69	70	91	71	72	68	68	87	70	71	67	68	
Morocco	Midelt	4970	92	58	52	57	59	60	62	51	56	90	58	59	50	53	89	58	59	49	53	
Morocco	Ouarzazate	3740	100	62	56	62	63	64	67	54	58	98	61	62	50	54	97	61	62	48	54	
Morocco	Oujda	1541	98	70	66	70	72	72	74	68	70	94	69	70	66	67	91	69	70	65	67	
Morocco	Safi	147	94	71	68	72	73	73	75	69	71	89	70	71	69	69	85	70	71	68	69	
Morocco	Tanger	68	92	71	68	72	72	73	75	69	71	89	71	72	68	68	86	70	71	68	68	
Netherlands	Amsterdam	-6	80	66	64	66	67	67	68	65	66	77	65	66	64	63	74	64	65	61	63	
Netherlands	Beek	380	83	67	65	67	68	69	70	64	66	79	65	66	63	63	76	64	65	62	63	
Netherlands	De Bilt	13	82	66	64	66	67	68	69	64	65	79	65	66	63	62	75	64	65	61	62	
Netherlands	Eindhoven	72	83	67	65	67	68	69	70	64	65	80	65	66	62	62	77	64	65	60	62	
Netherlands	Gilze/Rijen	42	82	66	64	66	67	68	69	63	65	79	65	66	63	62	76	63	64	61	62	
Netherlands	Groningen	13	81	67	65	67	68	68	69	65	66	77	65	66	64	63	74	64	65	62	63	
Netherlands	Leeuwarden	6	79	66	64	66	67	67	68	63	64	75	64	65	61	61	71	63	64	61	61	
Netherlands	Rotterdam	-13	80	67	65	67	68	68	69	65	66	77	65	66	63	63	74	64	65	61	63	
Netherlands Antilles	Willemstad	219	91	80	79	80	81	81	82	80	79	90	80	81	79	79	90	79	80	79	79	
New Caledonia	Noumea	236	88	76	74	76	77	77	78	77	77	86	76	77	76	75	85	75	76	75	75	
New Zealand	Auckland	19	77	66	65	66	67	67	68	68	68	76	66	67	67	66	74	66	67	65	66	
New Zealand	Christchurch	111	83	62	59	63	63	64	66	59	62	79	61	62	59	59	76	60	61	57	59	
New Zealand	Taiaroa Head	249	69	57	55	57	58	58	59	59	59	66	57	58	58	57	64	56	57	57	57	
New Zealand	Wellington (934340)	22	74	64	63	64	65	65	66	64	64	71	63	64	63	62	70	62	63	62	62	
Niger	Agadez	1646	108	67	61	68	69	70	73	69	71	107	67	69	67	68	105	66	68	66	68	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Niger	Niamey	744	108	71	66	72	73	74	77	75	76	106	71	73	74	75	105	70	72	73	75	
Norway	Bergen	164	73	59	57	59	60	60	61	57	59	68	57	58	56	56	65	55	56	55	56	
Norway	Bodo	42	70	59	58	59	60	60	61	56	57	66	57	58	54	54	63	55	56	52	54	
Norway	Oslo/Fornebu	55	80	63	61	64	64	65	66	60	62	77	62	63	59	59	73	60	61	58	59	
Norway	Oslo/Gardermoen	669	78	60	58	60	61	62	63	56	59	75	58	59	54	55	71	57	58	54	55	
Norway	Stavanger	29	73	59	57	59	60	60	61	58	60	70	58	59	56	57	66	57	58	56	57	
Norway	Svinoy (Lgt-H)	134	64	57	56	57	57	58	58	57	58	61	56	56	57	55	60	56	56	54	55	
Norway	Tromso	32	68	57	56	57	58	58	59	55	56	64	55	56	51	52	61	54	54	51	52	
Norway	Trondheim	55	75	60	58	60	61	61	63	59	61	71	59	60	57	57	68	58	59	57	57	
Norway	Utsira	183	67	58	57	58	59	59	60	58	59	64	58	58	57	57	61	57	57	57	57	
Oman	Masqat	49	109	73	68	74	76	77	79	84	84	107	73	75	83	82	105	73	75	82	82	
Oman	Salalah	65	92	71	68	72	72	73	75	80	81	91	76	77	80	79	90	76	77	79	79	
Oman	Thamarit	1459	108	69	63	70	71	72	75	74	76	106	68	70	74	73	104	68	70	71	73	
Oman	Tur'at Masirah	62	99	74	71	75	76	76	78	82	82	96	76	77	80	80	94	77	78	80	80	
Panama	Panama	52	95	76	74	77	77	78	79	80	80	93	77	78	78	79	92	77	78	79	79	
Panama	Tocumen	36	93	78	76	78	79	79	81	78	79	92	77	78	77	77	91	77	78	77	77	
Paraguay	Asuncion	331	98	75	72	76	77	77	79	76	77	95	75	76	75	75	94	75	76	74	75	
Peru	Arequipa	8267	75	55	51	54	55	55	57	53	55	74	54	54	53	53	73	53	53	51	53	
Peru	Cuzco	10659	72	52	47	50	51	52	53	49	50	71	52	51	47	48	70	51	50	46	48	
Peru	Iquitos	413	93	80	78	80	81	81	82	79	79	92	80	81	78	78	91	80	81	78	78	
Peru	Lima	42	86	75	74	75	76	76	77	73	74	84	74	75	73	72	82	73	74	72	72	
Peru	Pisco	22	86	75	74	75	76	76	77	73	73	83	73	74	71	70	82	72	73	70	70	
Peru	Talara	295	90	76	74	76	77	77	78	77	77	88	75	76	76	75	87	74	75	75	75	
Philippines	Angeles, Clark AFB	643	97	78	75	78	79	80	81	80	81	95	77	78	80	79	93	77	78	79	79	
Philippines	Baguio	4924	82	71	69	71	71	72	72	73	72	79	70	70	70	69	77	69	69	69	69	
Philippines	Cebu/Mандаue	78	93	81	79	81	82	82	83	80	80	92	81	82	80	79	91	80	81	78	79	
Philippines	Manila, Aquino Airport	68	95	81	79	81	82	82	83	81	81	93	80	81	80	79	92	79	80	80	79	
Philippines	Olongapo	56	98	77	74	78	78	79	81	81	81	96	77	78	80	79	95	78	79	78	79	
Poland	Bialystok	495	81	66	64	66	67	67	68	65	66	78	65	66	63	62	75	64	65	61	62	
Poland	Gdansk	452	80	65	63	65	66	66	67	62	64	77	63	64	61	59	73	62	63	59	59	
Poland	Katowice	931	83	67	65	67	68	68	70	62	64	80	65	66	62	62	77	64	65	60	62	
Poland	Kielce	856	83	67	65	67	68	68	70	63	65	80	65	66	63	62	76	64	65	60	62	
Poland	Kolobrzeg	16	80	65	63	65	66	66	68	64	64	75	63	64	61	61	71	63	64	61	61	
Poland	Krakow	777	85	69	67	69	70	70	72	65	66	81	67	68	63	63	77	65	66	63	63	
Poland	Lodz	616	84	66	64	66	67	68	69	62	64	80	65	66	60	61	77	63	64	60	61	
Poland	Lublin	787	82	67	65	67	68	68	69	64	65	79	66	67	62	62	76	64	65	60	62	
Poland	Poznan	301	85	66	63	67	67	68	69	62	64	81	64	65	62	61	78	63	64	60	61	
Poland	Przemysl	918	82	67	65	67	68	68	69	65	66	79	66	67	63	63	76	64	65	62	63	
Poland	Snezka	5291	64	55	53	55	55	55	56	55	55	60	54	54	53	52	58	52	52	51	52	
Poland	Suwalki	610	80	66	64	66	67	67	68	64	65	77	65	66	62	61	74	63	64	60	61	
Poland	Szczecin	9	83	67	65	67	68	69	70	64	66	80	66	67	62	62	77	64	65	62	62	
Poland	Torun	236	84	67	65	67	68	69	70	64	65	80	65	66	62	61	77	64	65	60	61	
Poland	Warsaw	351	84	67	65	67	68	69	70	65	66	81	66	67	63	63	77	64	65	61	63	
Poland	Wroclaw	396	84	67	65	67	68	69	70	63	65	81	66	67	62	62	78	64	65	61	62	
Portugal	Beja	810	99	70	66	71	72	73	75	60	65	95	68	70	59	62	92	67	69	59	62	
Portugal	Braganca	2270	92	65	61	65	66	67	69	57	60	88	64	65	56	58	85	63	64	54	58	
Portugal	Coimbra	459	93	70	67	71	72	72	74	65	67	89	69	70	65	64	85	68	69	62	64	
Portugal	Evora	1053	96	68	64	69	70	71	72	59	64	93	66	68	58	62	89	66	67	58	62	
Portugal	Faro	13	89	69	66	70	70	71	72	69	71	86	68	69	69	68	84	69	70	67	68	
Portugal	Lisbon	403	93	69	66	70	71	71	73	67	68	90	68	69	66	66	86	68	69	65	66	
Portugal	Portalegre	1935	94	66	62	66	67	68	70	58	62	91	65	66	57	59	88	64	65	56	59	
Portugal	Porto	239	86	67	64	68	68	69	70	63	66	82	66	67	63	64	79	65	66	63	64	
Portugal	Viana Do Castelo	59	90	70	67	71	71	72	73	65	67	86	69	70	64	65	82	67	68	64	65	
Puerto Rico	Ceiba, Roosevelt Rds	39	90	78	76	78	79	79	80	78	79	89	78	79	78	77	88	77	78	77	77	
Puerto Rico	San Juan	62	92	77	75	77	78	78	80	79	78	90	78	79	78	77	89	78	79	76	77	
Qatar	Ad Dawhah	32	109	71	66	72	74	75	77	85	85	107	72	74	84	83	105	72	74	83	83	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition									1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify
Romania	Bucharest	298	91	72	69	73	73	74	75	69	71	88	70	71	68	68	86	69	70	66	68
Romania	Cluj-Napoca	1354	85	68	66	68	69	69	71	67	68	82	67	68	65	64	79	65	66	63	64
Romania	Constanta	45	83	72	71	72	73	73	74	73	74	81	72	73	72	71	79	71	72	70	71
Romania	Craiova	639	92	74	72	74	75	76	77	73	73	89	73	74	69	69	86	71	72	69	69
Romania	Galati	236	89	72	70	72	73	74	75	70	71	86	70	71	67	67	84	69	70	67	67
Romania	Omul Mountain	8231	58	50	48	50	50	50	51	50	50	54	48	48	48	47	52	47	47	46	47
Romania	Satu Mare	406	88	71	69	71	72	73	74	66	68	85	69	70	66	65	82	68	69	64	65
Romania	Tamisoara	288	92	70	67	71	71	72	74	64	67	88	69	70	63	64	85	67	68	63	64
Russia	Abakan	803	85	64	61	64	65	66	67	60	63	82	63	64	60	60	78	62	63	58	60
Russia	Aldan	2237	81	61	58	61	62	63	64	57	60	77	60	61	55	56	74	59	60	54	56
Russia	Aleksandrovsk-Sahal	102	74	64	63	64	65	65	66	65	65	71	63	64	63	61	68	61	61	61	61
Russia	Anadyr'	203	65	56	55	56	57	57	58	52	54	62	55	55	51	50	59	53	53	49	50
Russia	Apuka	26	61	55	54	55	55	56	56	53	54	58	53	53	52	51	56	52	52	52	51
Russia	Arkhangel'sk	42	79	65	63	65	66	66	67	63	64	75	63	64	61	60	72	62	63	59	60
Russia	Armavir	524	90	69	66	70	70	71	72	69	70	87	69	70	66	66	84	68	69	65	66
Russia	Astrakhan'	59	94	71	68	72	73	73	75	69	71	91	69	71	66	67	88	68	69	66	67
Russia	Barnaul	826	85	66	63	66	67	68	69	62	64	81	64	65	62	61	78	63	64	60	61
Russia	Blagoveshchensk	449	86	69	67	69	70	71	72	70	71	83	69	70	70	68	80	67	68	67	68
Russia	Borzya	2244	83	63	60	63	64	65	66	63	64	80	62	63	62	61	77	62	63	60	61
Russia	Bratsk	1604	81	63	60	63	64	65	66	61	62	77	62	63	59	59	74	61	62	59	59
Russia	Bryansk	711	81	66	64	66	67	67	68	64	65	78	65	66	63	62	75	64	65	61	62
Russia	Chelyabinsk	744	85	66	63	66	67	68	69	64	65	82	65	66	62	62	79	64	65	61	62
Russia	Cherepovets	429	79	67	65	67	68	68	69	65	66	76	65	66	62	62	73	63	64	61	62
Russia	Chita	2247	84	65	62	65	66	66	68	63	64	80	63	64	61	60	77	61	62	60	60
Russia	Dudinka	62	76	62	60	62	63	63	64	59	60	72	60	61	56	55	67	58	59	54	55
Russia	Egvekinot	85	64	53	52	53	54	54	55	50	51	60	52	53	48	48	57	50	50	47	48
Russia	Groznyy	531	91	71	68	71	72	73	74	67	69	88	69	70	65	66	86	68	69	65	66
Russia	Habarovsk/Novy	236	86	70	68	70	71	72	73	70	71	83	69	70	69	67	80	68	69	66	67
Russia	Irkutsk	1683	81	63	60	63	64	64	66	61	63	78	62	63	61	59	74	61	62	58	59
Russia	Izhevsk	518	85	66	63	66	67	68	69	64	65	81	65	66	62	62	78	64	65	60	62
Russia	Juzno-Kurilsk	131	68	65	65	65	65	65	66	66	65	66	64	64	65	63	65	63	63	63	63
Russia	Juzno-Sahalinsk	102	78	68	67	68	69	69	70	68	69	75	67	68	66	64	72	65	65	64	64
Russia	Kaliningrad	88	80	66	64	66	67	67	68	63	64	77	64	65	62	61	74	62	63	60	61
Russia	Kaluga	659	80	67	65	67	68	68	69	65	65	77	66	67	63	62	74	63	64	61	62
Russia	Kazan'	380	85	67	65	67	68	69	70	65	66	81	66	67	64	62	78	64	65	61	62
Russia	Kirov	482	82	67	65	67	68	68	69	64	66	79	65	66	63	62	75	64	65	61	62
Russia	Kolpashevo	249	82	66	64	66	67	68	69	65	66	79	65	66	63	62	76	63	64	61	62
Russia	Krasnodar	108	90	71	69	72	72	73	74	70	70	87	70	71	67	67	84	69	70	67	67
Russia	Krasnovarsk	908	83	65	62	65	66	67	68	63	64	80	63	64	61	61	77	62	63	59	61
Russia	Kurgan	259	87	67	64	68	68	69	70	65	66	83	66	67	62	63	80	65	66	62	63
Russia	Kursk	688	83	67	65	67	68	68	70	65	66	80	66	67	64	62	78	65	66	62	62
Russia	Kyakhta	2627	83	62	59	62	63	64	65	59	61	80	61	62	58	57	76	60	61	56	57
Russia	Magadan	387	65	55	54	55	56	56	57	54	54	61	53	54	52	52	59	52	52	52	52
Russia	Magnitogorsk	1253	85	65	62	65	66	67	68	62	64	82	64	65	60	60	79	62	63	58	60
Russia	Markovo	108	76	61	59	61	62	62	64	55	58	72	59	60	54	54	69	57	58	52	54
Russia	Moscow	511	82	67	65	67	68	68	69	65	65	79	65	66	63	62	76	64	65	61	62
Russia	Moscow, Vnukovo	666	81	66	64	66	67	67	68	64	65	77	65	66	63	61	75	63	64	61	61
Russia	Murmansk	167	74	59	57	59	60	60	62	55	57	70	57	58	53	53	66	56	57	52	53
Russia	Nikolayevsk	223	78	67	66	67	68	68	69	66	66	75	65	66	64	62	73	64	65	62	62
Russia	Nikolskoe/Beringa	20	57	54	54	54	54	54	55	54	54	55	53	53	52	51	54	52	52	51	51
Russia	Nizhniy Novgorod	269	83	67	65	67	68	69	70	66	66	80	66	67	64	63	77	64	65	62	63
Russia	Nizhniy Tagil	846	83	65	63	65	66	67	68	63	64	80	64	65	61	61	76	63	64	59	61
Russia	Novokuznetsk	1010	83	64	61	64	65	66	67	63	64	80	64	65	61	61	77	63	64	60	61
Russia	Novosibirsk	580	83	66	64	66	67	68	69	64	66	80	64	65	62	62	77	63	64	60	62
Russia	Nyurba	423	84	66	64	66	67	68	69	62	64	80	64	65	60	59	76	61	62	57	59
Russia	Olekminsk	741	85	65	62	65	66	67	68	60	63	81	64	65	58	59	77	62	63	59	59

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Russia	Omsk	403	87	66	63	67	67	68	69	63	64	84	64	65	60	61	81	64	65	58	61	
Russia	Orel	666	82	66	64	66	67	67	69	64	65	80	66	67	63	62	77	64	65	60	62	
Russia	Orenburg	357	92	66	63	67	68	69	70	61	64	88	65	67	59	61	85	64	65	59	61	
Russia	Ozernaja	95	60	56	55	56	56	56	57	55	56	58	54	54	54	53	56	53	53	53	53	
Russia	Penza	570	85	65	62	65	66	67	68	63	65	82	64	65	62	62	79	63	64	60	62	
Russia	Perm'	564	84	67	65	67	68	69	70	64	65	81	65	66	62	62	77	64	65	60	62	
Russia	Petropavlovsk-Kamca	79	69	60	59	60	61	61	62	57	58	66	58	59	53	54	63	56	56	54	54	
Russia	Petrozavodsk	367	77	64	62	64	65	65	66	62	64	73	62	63	60	59	70	60	61	58	59	
Russia	Pskov	137	80	66	64	66	67	67	68	66	65	77	64	65	62	61	74	63	64	61	61	
Russia	Rostov-Na-Donu	252	89	69	66	70	70	71	72	66	68	86	68	69	66	65	83	67	68	64	65	
Russia	Rubtsovsk	705	87	67	64	67	68	69	70	63	66	84	66	67	63	62	81	64	65	60	62	
Russia	Ryazan'	557	83	67	65	67	68	69	70	64	66	80	66	67	64	63	77	64	65	62	63	
Russia	Rybinsk	374	80	68	66	68	69	69	70	65	66	77	65	66	64	63	74	64	65	61	63	
Russia	Samara (Kuybyshev)	144	88	68	65	69	69	70	71	67	67	85	67	68	65	63	82	66	67	63	63	
Russia	Saratov	511	87	66	63	67	67	68	69	63	65	84	65	66	62	62	81	64	65	60	62	
Russia	Smolensk	790	79	66	64	66	67	67	68	64	65	76	65	66	62	62	74	63	64	62	62	
Russia	Sochi	52	83	73	72	73	74	74	75	73	74	81	73	74	72	71	80	72	73	71	71	
Russia	St Petersburg	13	79	65	63	65	66	66	67	63	64	76	64	65	62	61	73	62	63	60	61	
Russia	Svobodnyy	646	85	67	65	67	68	69	70	69	69	82	67	68	67	66	79	66	67	64	66	
Russia	Syktvykar	390	83	66	64	66	67	68	69	64	65	79	65	66	63	61	75	62	63	61	61	
Russia	Tambov	456	86	67	64	67	68	69	70	65	66	83	66	67	63	63	80	64	65	60	63	
Russia	Tayshet	990	83	64	61	64	65	66	67	62	64	79	63	64	61	60	76	62	63	59	60	
Russia	Ufa	344	87	67	64	68	68	69	70	65	66	83	66	67	62	63	80	65	66	62	63	
Russia	Ulan Ude	1673	85	63	60	63	64	65	66	62	62	82	62	63	59	59	78	61	62	57	59	
Russia	Urup Island	230	63	59	58	59	59	59	60	59	60	60	57	57	57	55	57	56	56	55	55	
Russia	Ust'ilimsk	1318	82	63	60	63	64	65	66	61	63	78	62	63	59	58	75	61	62	56	58	
Russia	Ust-Kamcatsk	89	67	57	56	57	58	58	59	56	56	63	56	56	54	53	60	54	54	52	53	
Russia	Vladimir	557	82	67	65	67	68	68	69	64	66	78	66	67	63	62	75	64	65	61	62	
Russia	Vladivostok	604	78	69	68	69	70	70	71	71	71	75	67	68	69	68	72	66	66	68	68	
Russia	Volgograd	475	90	65	62	66	67	67	69	62	65	88	65	67	61	62	85	64	65	59	62	
Russia	Vologda	429	80	66	64	66	67	67	68	65	65	76	64	65	64	62	74	63	64	62	62	
Russia	Voronezh	505	85	66	63	66	67	68	69	64	65	82	65	66	62	62	79	63	64	62	62	
Russia	Yakutsk	337	85	66	63	67	67	68	69	61	64	81	64	65	60	59	78	62	63	58	59	
Russia	Yekaterinburg	777	84	66	64	66	67	68	69	64	65	81	65	66	62	62	77	64	65	60	62	
Russia	Yelets	551	84	67	65	67	68	69	70	64	66	81	66	67	64	63	78	64	65	61	63	
Russia	Zyryanka	141	83	63	60	64	64	65	66	59	60	79	62	63	57	56	74	60	61	54	56	
Samoa	Pago Pago	9	88	80	79	80	81	81	81	80	80	88	80	81	79	79	87	80	80	79	79	
Saudi Arabia	Abha	6837	87	56	50	55	56	57	59	64	65	86	56	56	63	62	84	56	56	61	62	
Saudi Arabia	Al Jawf	2244	105	63	57	63	65	66	69	45	57	103	62	64	45	52	101	61	63	41	52	
Saudi Arabia	Al Madinah	2070	113	65	58	65	67	69	72	55	62	110	65	67	53	57	109	64	66	50	57	
Saudi Arabia	Al Wajh	52	95	72	69	73	74	74	76	81	82	93	76	77	80	79	91	78	79	80	79	
Saudi Arabia	Ar'ar	1811	107	68	62	68	70	71	74	60	62	105	68	70	57	57	103	67	69	54	57	
Saudi Arabia	At Ta'if	4753	97	65	59	64	66	67	69	66	67	95	65	66	63	63	94	65	66	62	63	
Saudi Arabia	Az Zahran	55	111	71	66	72	74	75	78	84	84	109	71	74	81	80	107	72	74	80	80	
Saudi Arabia	Hafar Al Batin	1165	113	67	60	68	70	71	74	58	64	112	66	69	53	59	110	66	69	47	59	
Saudi Arabia	Ha'il	3323	105	65	58	65	66	68	70	53	59	104	64	65	52	55	102	64	65	47	55	
Saudi Arabia	Jiddah	39	104	72	68	73	74	75	77	80	81	102	73	75	78	79	100	74	76	77	79	
Saudi Arabia	Jizan	9	102	83	81	84	84	85	86	84	84	100	83	84	83	82	99	83	84	82	82	
Saudi Arabia	Khamis Mushayt	6738	88	57	51	56	57	58	60	63	63	87	57	57	61	61	86	56	56	60	61	
Saudi Arabia	Makkah	1017	113	76	71	77	78	79	82	75	77	111	76	78	74	74	109	75	77	73	74	
Saudi Arabia	Qasim	2132	110	67	60	67	69	70	73	65	68	109	65	67	58	59	107	64	66	52	59	
Saudi Arabia	Rafha	1466	111	69	63	70	71	73	76	57	63	109	68	70	52	58	107	67	69	51	58	
Saudi Arabia	Riyadh	2007	111	64	57	64	66	68	71	56	62	110	64	66	51	57	108	64	66	49	57	
Saudi Arabia	Tabuk	2526	104	64	58	64	66	67	70	55	59	102	63	65	52	55	100	63	65	48	55	
Saudi Arabia	Turayf	2667	102	64	58	64	66	67	69	56	60	99	63	65	53	56	97	62	64	51	56	
Saudi Arabia	Yanbu'al Bahr	3	109	76	72	77	78	79	82	79	81	106	75	77	78	77	104	76	78	77	77	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Senegal	Dakar	78	89	74	72	74	75	75	77	79	79	88	77	78	78	78	86	77	78	77	78	
Senegal	Saint Louis	13	101	69	65	70	71	72	74	80	81	97	69	71	80	79	94	69	71	79	79	
Senegal	Tambacounda	164	106	70	65	71	72	74	76	78	79	104	70	72	77	77	103	70	72	76	77	
Senegal	Ziguinchor	75	101	72	68	73	74	75	77	81	81	98	71	73	80	80	96	72	74	80	80	
Singapore	Singapore	52	91	79	77	79	80	80	81	79	79	90	79	80	79	79	90	79	80	78	79	
Slovakia	Bratislava	427	89	69	66	70	70	71	72	65	66	86	68	69	62	63	83	67	68	62	63	
Slovakia	Chopok Mounlain	6601	59	52	51	52	52	52	53	52	52	56	51	51	50	49	54	50	50	50	49	
Slovakia	Kosice	761	85	68	66	68	69	70	71	64	65	82	67	68	62	62	79	65	66	62	62	
Slovakia	Lomnicky Stit (Peak)	8645	53	47	46	47	47	47	48	47	47	51	45	45	45	43	49	43	43	43	43	
Slovakia	Zilina	1033	85	67	64	67	68	69	70	61	64	82	65	66	61	61	78	64	65	59	61	
Slovenia	Ljubljana	1263	86	68	65	68	69	70	71	64	65	83	67	68	62	62	80	65	66	62	62	
South Africa	Bloemfontein	4422	93	60	54	60	61	62	64	62	64	91	60	61	60	61	89	60	61	59	61	
South Africa	Cape Town	137	87	67	64	68	68	69	70	65	67	83	67	68	64	65	81	65	66	64	65	
South Africa	Durban	26	87	75	73	75	76	76	77	76	76	85	75	76	75	74	83	74	75	74	74	
South Africa	Johannesburg	5577	84	60	56	59	60	61	63	60	62	82	60	60	60	60	80	60	60	59	60	
South Africa	Marion Island	72	57	54	54	54	54	55	54	54	54	55	52	52	52	51	53	51	51	51	51	
South Africa	Port Elizabeth	196	85	66	63	67	67	68	69	71	71	81	68	69	70	69	79	68	69	69	69	
South Africa	Pretoria	4337	89	64	60	64	65	65	67	65	66	88	63	64	63	63	86	63	64	62	63	
Spain	Barcelona	19	85	74	73	74	75	75	76	75	75	84	74	75	74	73	82	73	74	72	73	
Spain	Granada	1833	99	67	62	67	69	70	72	60	64	96	67	68	60	61	93	66	67	58	61	
Spain	La Coruna	219	77	65	63	65	66	66	67	63	65	74	65	66	63	63	72	64	65	62	63	
Spain	Madrid	1909	97	69	65	69	70	71	73	61	64	94	68	69	60	60	92	67	68	58	60	
Spain	Malaga	22	93	68	65	69	70	70	72	72	73	90	68	70	71	70	86	68	69	70	70	
Spain	Palma	26	91	74	72	75	75	76	77	76	77	89	73	74	75	73	86	73	74	73	73	
Spain	Salamanca	2608	93	65	61	65	66	67	69	57	61	90	64	65	54	57	86	63	64	54	57	
Spain	Santander	213	80	67	65	67	68	68	69	69	69	76	67	68	67	66	75	66	67	66	66	
Spain	Santiago De Compostela	1204	88	69	66	69	70	71	72	65	66	84	67	68	63	63	80	66	67	62	63	
Spain	Sevilla	101	104	75	71	76	77	78	80	67	70	100	72	74	65	66	97	71	73	63	66	
Spain	Valencia	203	90	71	68	72	72	73	74	73	74	88	72	73	72	72	86	72	73	71	72	
Spain	Zaragoza	862	97	69	65	70	71	72	74	65	67	93	69	70	63	64	90	68	69	63	64	
Sweden	Goteborg, Landvetter	554	78	62	60	62	63	64	65	59	61	75	60	61	57	57	72	59	60	55	57	
Sweden	Goteborg, Save	173	78	62	60	62	63	64	65	61	63	74	61	62	61	59	71	60	61	59	59	
Sweden	Jonkoping	761	79	61	59	61	62	63	64	59	61	75	60	61	57	57	72	58	59	55	57	
Sweden	Kalmar	52	79	63	61	63	64	65	66	61	63	75	62	63	60	59	72	60	61	57	59	
Sweden	Karlsborg	334	76	63	61	63	64	64	65	60	61	73	61	62	59	58	70	60	61	57	58	
Sweden	Karlstad	180	77	63	61	63	64	64	65	61	63	74	62	63	61	59	71	60	61	59	59	
Sweden	Kiruna	1482	70	56	54	56	57	57	58	53	54	66	54	55	51	50	63	52	53	49	50	
Sweden	Malmo	347	77	62	60	62	63	63	64	63	64	74	61	62	61	60	71	60	61	59	60	
Sweden	Ostersund/Froso	1213	74	58	56	58	59	59	61	55	56	70	57	58	52	53	67	55	56	52	53	
Sweden	Soderhamn	118	77	62	60	62	63	63	65	59	61	73	60	61	57	57	70	59	60	55	57	
Sweden	Stockholm, Arlanda	200	80	63	61	63	64	65	66	60	63	77	61	62	59	59	73	59	60	58	59	
Sweden	Stockholm, Bromma	36	79	63	61	63	64	65	66	62	63	76	61	62	60	59	72	60	61	58	59	
Sweden	Sundsvall	32	75	62	60	62	63	63	64	60	62	72	59	60	59	58	69	58	59	56	58	
Sweden	Ungskar	9	71	65	64	65	65	66	66	65	64	68	63	63	62	61	67	62	62	61	61	
Sweden	Uppsala	134	78	62	60	62	63	64	65	61	62	75	61	62	59	58	71	59	60	56	58	
Sweden	Visby	154	75	63	61	63	64	64	65	64	64	72	62	63	61	61	70	61	62	60	61	
Switzerland	Geneva	1364	86	66	63	66	67	68	69	61	64	83	65	66	61	61	80	64	65	59	61	
Switzerland	Interlaken	1902	82	65	62	65	66	66	68	61	63	79	65	66	59	60	76	63	64	59	60	
Switzerland	Jungfrau Mountain	11732	43	33	31	32	33	33	34	35	35	41	32	32	32	32	39	32	32	31	32	
Switzerland	La Chaux-De-Fonds	3343	78	62	59	62	63	63	64	57	59	74	61	61	57	56	71	59	59	55	56	
Switzerland	Locarno	649	84	70	68	70	71	71	72	68	69	82	69	70	67	66	80	67	68	65	66	
Switzerland	Lugano	905	85	71	69	71	72	72	73	69	69	83	69	70	67	66	81	68	69	66	66	
Switzerland	Payerne	1610	84	67	65	67	68	68	70	64	64	81	66	67	62	61	78	64	65	59	61	
Switzerland	Saentis (Aut)	8202	57	47	45	46	47	47	48	48	48	55	46	46	45	45	53	44	44	44	45	
Switzerland	San Bernardino	5374	69	55	52	55	55	56	57	54	56	67	54	54	53	52	64	53	53	51	52	
Switzerland	Zurich	1866	83	66	63	66	67	67	69	61	64	80	65	66	61	61	77	63	64	61	61	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
Syria	Damascus	1984	101	64	58	64	66	67	70	62	66	98	64	66	60	62	96	64	66	59	62	
Taiwan	Hsinchu	88	93	81	79	81	82	82	83	81	80	92	81	82	80	79	91	81	82	78	79	
Taiwan	Hualien	62	90	80	79	80	81	81	82	80	80	89	80	81	79	79	88	80	81	79	79	
Taiwan	Kaohsiung	29	92	79	77	79	80	80	81	80	80	90	79	80	79	79	90	79	80	78	79	
Taiwan	Taichung	367	94	82	80	82	83	83	84	82	82	93	82	83	81	80	91	81	82	80	80	
Taiwan	Tainan (593580)	45	92	81	80	81	82	82	83	81	81	91	81	82	80	80	90	80	81	79	80	
Taiwan	Taipei	19	94	80	78	80	81	81	82	79	80	93	80	81	78	79	92	80	81	78	79	
Taiwan	Taipei Intl Airport	108	93	80	78	80	81	81	82	80	80	92	80	81	80	79	91	80	81	78	79	
Tajikistan	Dushanbe	2634	99	67	62	67	68	69	72	62	64	97	67	68	59	60	95	66	67	58	60	
Tajikistan	Khujand (Leninabad)	1404	99	67	62	68	69	70	72	60	63	96	66	68	58	59	94	66	68	55	59	
Thailand	Bangkok	39	99	80	78	81	81	82	83	81	82	97	79	80	81	80	95	78	79	80	80	
Thailand	Chiang Mai	1030	100	72	68	73	74	75	76	76	77	98	72	74	75	75	96	73	74	75	75	
Thailand	Chiang Rai	1295	98	72	68	72	73	74	76	76	77	96	72	73	76	76	94	73	74	75	76	
Thailand	Chumphon	16	95	79	77	79	80	81	82	79	79	94	79	80	78	78	92	79	80	77	78	
Thailand	Hat Yai	114	95	77	75	78	78	79	80	77	79	94	77	78	77	77	93	77	78	76	77	
Thailand	Phetchabun	380	101	78	75	79	80	80	82	79	79	99	78	79	78	78	97	78	79	78	78	
Thailand	Phrae	531	101	76	73	77	78	78	80	78	79	99	77	78	78	78	97	76	77	77	78	
Thailand	Tak	406	102	74	70	75	76	77	79	77	78	101	74	76	76	76	99	74	76	76	76	
Trinidad & Tobago	Port of Spain	49	91	77	75	77	78	78	79	78	78	90	77	78	76	77	90	77	78	77	77	
Tunisia	Bizerte	9	97	72	69	73	74	74	76	74	74	92	72	73	73	72	89	72	73	72	72	
Tunisia	Gabes	16	96	71	68	72	73	73	75	78	77	92	73	74	75	75	89	73	74	74	75	
Tunisia	Gafsa	1030	105	68	63	69	70	71	74	65	69	101	69	71	64	66	98	68	70	63	66	
Tunisia	Kelibia	98	89	73	71	73	74	75	76	76	76	86	73	74	75	74	85	73	74	74	74	
Tunisia	Qairouan (Kairouan)	223	105	71	67	72	73	74	77	71	73	100	71	73	70	70	97	71	73	68	70	
Tunisia	Tunis	13	98	73	70	74	75	75	77	74	76	94	73	74	74	73	91	73	74	73	73	
Turkey	Adana	216	97	71	68	72	73	74	75	76	76	94	71	73	75	74	92	72	73	74	74	
Turkey	Ankara	3113	90	63	59	63	64	65	67	55	59	86	63	64	54	55	84	62	63	53	55	
Turkey	Erzurum	5767	84	61	57	60	61	62	64	57	58	82	60	60	54	54	79	59	59	53	54	
Turkey	Eskisehir	2575	90	68	65	68	69	70	71	65	66	87	67	68	63	62	85	66	67	59	62	
Turkey	Istanbul	121	86	70	68	70	71	72	73	71	72	84	69	70	69	68	83	69	70	68	68	
Turkey	Izmir/Cigli (Cv/AFB)	16	96	72	69	73	74	74	76	66	68	93	71	73	66	66	91	70	71	64	66	
Turkey	Malatya	2785	97	68	63	68	69	70	72	59	61	95	67	68	56	57	93	66	67	55	57	
Turkey	Van	5449	84	66	63	66	66	67	68	66	66	82	66	66	63	62	80	65	65	61	62	
Turkmenistan	Ashgabat (Ashkhabad)	688	104	67	62	68	69	70	73	64	66	102	67	69	63	63	99	67	69	60	63	
Turkmenistan	Dashhowuz (Tashauz)	288	103	74	70	75	76	77	79	69	70	99	73	75	67	66	96	71	73	66	66	
UK & N. Ireland	Aberdeen/Dyce	213	71	62	61	62	63	63	64	61	60	68	60	61	58	57	65	58	58	58	57	
UK & N. Ireland	Aberporth	439	72	62	61	62	63	63	64	61	62	68	61	61	60	59	65	60	60	59	59	
UK & N. Ireland	Aughton	183	75	64	63	64	65	65	66	61	62	72	62	63	60	59	69	60	61	59	59	
UK & N. Ireland	Aviemore	721	75	61	59	61	62	62	63	58	59	71	60	61	56	56	67	58	59	55	56	
UK & N. Ireland	Belfast	265	72	62	61	62	63	63	64	61	61	69	61	62	59	58	67	60	60	59	58	
UK & N. Ireland	Birmingham	324	78	64	62	64	65	65	66	60	62	75	62	63	60	59	72	61	62	57	59	
UK & N. Ireland	Bournemouth	36	78	65	63	65	66	66	67	61	63	75	63	64	61	61	72	62	63	60	61	
UK & N. Ireland	Bristol	36	79	65	63	65	66	66	67	63	63	76	63	64	61	60	73	62	63	59	60	
UK & N. Ireland	Camborne	288	71	62	61	62	63	63	64	62	63	68	61	61	61	60	66	60	60	60	60	
UK & N. Ireland	Cardiff	219	77	64	62	64	65	65	66	62	63	74	63	64	60	60	71	62	63	60	60	
UK & N. Ireland	Edinburgh	134	72	61	60	61	62	62	63	60	60	69	60	61	58	57	66	59	59	57	57	
UK & N. Ireland	Exeter	98	78	65	63	65	66	66	67	63	64	75	64	65	61	61	72	62	63	61	61	
UK & N. Ireland	Finningley	55	78	64	62	64	65	65	66	60	62	75	63	64	60	59	72	61	62	57	59	
UK & N. Ireland	Glasgow	26	75	63	61	63	64	64	65	60	61	71	61	62	58	58	67	59	60	56	58	
UK & N. Ireland	Hemsby	45	74	65	64	65	66	66	67	63	63	71	63	64	61	61	69	62	62	61	61	
UK & N. Ireland	Herstmonceux	55	76	65	64	65	66	66	67	61	63	74	63	64	61	61	71	62	63	60	61	
UK & N. Ireland	Jersey/Channel Islands	275	76	65	64	65	66	66	67	62	63	73	63	64	60	61	70	62	63	60	61	
UK & N. Ireland	Kirkwall	68	64	59	58	59	59	59	60	58	58	62	57	57	56	56	60	56	56	56	56	
UK & N. Ireland	Lerwick	275	60	56	55	56	56	56	57	56	56	58	55	55	55	54	57	54	54	54	54	
UK & N. Ireland	Leuchars	39	72	61	60	61	62	62	63	58	60	69	59	60	58	57	66	58	59	56	57	
UK & N. Ireland	London, Gatwick	203	80	65	63	65	66	66	68	62	63	76	63	64	61	60	74	62	63	60	60	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
UK & N. Ireland	London, Heathrow	78	81	66	64	66	67	67	69	61	63	78	64	65	61	61	75	63	64	60	61	
UK & N. Ireland	Lyneham	511	78	64	62	64	65	65	66	62	62	75	62	63	60	59	72	61	62	58	59	
UK & N. Ireland	Lynemouth	98	69	61	60	61	62	62	62	59	61	67	60	60	59	58	65	58	58	58	58	
UK & N. Ireland	Manchester	255	77	63	61	63	64	64	65	60	62	74	62	63	59	59	71	60	61	58	59	
UK & N. Ireland	Nottingham	383	78	64	62	64	65	65	66	61	63	74	63	64	60	60	71	61	62	58	60	
UK & N. Ireland	Oban	13	73	61	59	61	62	62	63	59	60	69	60	61	58	57	66	58	59	58	57	
UK & N. Ireland	Plymouth	88	75	63	61	63	64	64	65	61	63	72	62	63	61	61	69	61	62	61	61	
UK & N. Ireland	Stansted Airport	347	79	64	62	64	65	65	66	61	63	76	63	64	60	60	73	62	63	59	60	
UK & N. Ireland	Stornoway	42	65	59	58	59	59	60	60	58	58	62	58	58	56	56	60	56	56	55	56	
UK & N. Ireland	Valley	36	74	63	62	63	64	64	65	60	62	70	61	62	59	59	67	60	60	59	59	
UK & N. Ireland	Wyton Raf	134	79	64	62	64	65	65	67	63	63	76	63	64	61	60	73	62	63	59	60	
Ukraine	Chernihiv (Chernigov)	449	84	68	66	68	69	70	71	66	66	81	67	68	63	63	78	65	66	63	63	
Ukraine	Chernivtsi (Chernovtsky)	787	83	68	66	68	69	69	70	64	66	80	66	67	63	63	78	65	66	61	63	
Ukraine	Dnipropetrovs'k	465	87	67	64	68	68	69	70	65	67	85	66	67	64	63	82	65	66	62	63	
Ukraine	Donets'k	741	86	66	63	66	67	68	69	65	65	83	66	67	62	63	80	65	66	63	63	
Ukraine	Kerch	160	85	69	67	69	70	71	72	70	70	83	69	70	67	67	81	68	69	66	67	
Ukraine	Kharkiv (Khar'kov)	498	85	67	65	67	68	69	70	66	66	83	65	66	63	63	80	65	66	63	63	
Ukraine	Kherson	157	89	68	65	69	69	70	72	66	68	86	68	69	65	65	83	66	67	63	65	
Ukraine	Kirovohrad (Kirovograd)	564	86	65	62	66	66	67	68	64	65	83	65	66	62	62	80	64	65	61	62	
Ukraine	Kryvyy Rih (Krivoi Rog)	410	87	67	64	68	68	69	70	65	66	85	66	67	62	63	82	65	66	62	63	
Ukraine	Kyyiv (Kiev)	551	83	67	65	67	68	69	70	64	66	80	66	67	64	63	77	65	66	62	63	
Ukraine	Luhans'k	203	88	67	64	68	68	69	71	64	66	85	66	67	62	63	82	64	65	62	63	
Ukraine	Mariupol' (Zdanov)	229	84	71	69	71	72	72	73	71	72	82	70	71	69	68	80	69	70	68	68	
Ukraine	Odesa	114	86	67	65	68	68	69	70	69	70	84	67	68	66	66	81	66	67	65	66	
Ukraine	Poltava	521	85	66	63	66	67	68	69	64	66	82	66	67	63	63	80	65	66	61	63	
Ukraine	Rivne (Rovno)	767	82	67	65	67	68	68	69	64	66	79	66	67	62	62	76	64	65	62	62	
Ukraine	Simferopol'	593	87	67	64	67	68	69	70	65	67	85	66	67	64	63	82	65	66	62	63	
Ukraine	Sumy	570	84	67	65	67	68	69	70	66	66	81	66	67	64	63	78	64	65	62	63	
Ukraine	Uzhhorod (Uzhgorod)	387	86	69	67	69	70	71	72	66	66	83	68	69	63	63	81	66	67	61	63	
Ukraine	Vinnitsya Vinnitsa)	977	82	66	64	66	67	67	69	63	65	79	65	66	63	62	77	64	65	60	62	
Ukraine	Zaporizhzhya	282	88	67	64	68	68	69	71	66	67	85	66	67	64	64	82	65	66	62	64	
Ukraine	Zhytomyr (Zhitomir)	744	82	67	65	67	68	68	69	64	65	79	65	66	62	62	77	64	65	60	62	
United Arab Emirates	Abu Dhabi	88	111	74	69	75	77	78	80	85	85	108	74	76	82	82	106	75	77	83	82	
United Arab Emirates	Dubai	16	107	75	71	76	77	78	80	84	85	105	75	77	82	82	103	76	78	83	82	
United Arab Emirates	Ra's Al Khaymah	101	111	76	71	77	78	79	82	82	83	109	77	79	81	81	107	77	79	80	81	
United Arab Emirates	Sharjah	108	110	77	73	78	79	80	83	82	84	107	77	79	82	81	106	77	79	80	81	
Uruguay	Colonia Del Sacramento	75	88	74	72	74	75	75	76	73	74	86	73	74	72	72	84	72	73	71	72	
Uruguay	Montevideo	104	89	72	70	72	73	74	75	73	74	86	71	72	71	71	83	70	71	71	71	
Uruguay	Paso De Los Toros	246	95	72	69	73	74	74	76	73	74	91	72	73	71	71	88	71	72	70	71	
Uruguay	Rocha	59	89	73	71	73	74	75	76	73	74	86	72	73	72	72	83	71	72	72	72	
Uruguay	Salto	111	98	74	71	75	76	76	78	75	76	95	74	75	73	73	92	74	75	72	73	
Uruguay	Treinta Y Tres	151	92	73	71	74	74	75	76	74	74	89	72	73	72	72	86	71	72	71	72	
USA, AK	Adak, NAS	13	59	55	54	55	55	55	56	52	53	57	53	53	50	51	55	51	51	49	49	
USA, AK	Anchorage, Elemendorf AF	213	71	58	56	58	59	59	60	54	57	69	57	58	53	55	66	56	57	52	53	
USA, AK	Anchorage, Ft. Richardson	377	74	60	58	60	61	61	62	54	56	71	58	59	53	54	68	57	58	53	53	
USA, AK	Anchorage, Intl Airport	131	71	59	57	59	60	60	61	54	56	68	57	58	53	55	65	56	57	53	53	
USA, AK	Annette	112	74	61	59	61	62	62	63	56	58	70	59	60	55	56	66	57	58	53	55	
USA, AK	Barrow	13	57	51	50	51	51	52	52	49	49	52	49	49	46	46	48	46	46	44	44	
USA, AK	Bethel	151	72	59	57	59	60	60	61	54	56	68	57	58	53	55	64	55	56	51	53	
USA, AK	Bettles	643	79	61	59	61	62	63	64	56	58	75	59	60	54	56	72	58	59	52	54	
USA, AK	Big Delta, Ft. Greely	1283	78	59	56	59	60	61	62	53	56	75	58	59	51	54	71	56	57	51	52	
USA, AK	Cold Bay	102	60	54	53	54	54	55	55	52	54	57	53	53	53	53	55	52	52	52	51	
USA, AK	Cordova	43	70	59	58	59	60	60	61	54	56	67	57	58	53	54	63	56	56	52	53	
USA, AK	Deadhorse	56	66	57	56	57	58	58	59	54	54	61	54	54	50	51	58	53	53	49	49	
USA, AK	Dillingham	95	69	57	55	57	58	58	59	54	56	66	56	57	52	53	62	54	55	51	52	
USA, AK	Fairbanks, Eielson AFB	548	81	61	58	61	62	63	64	56	58	78	60	61	54	56	75	59	60	52	54	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
USA, AK	Fairbanks, Intl Airport	453	81	61	58	62	62	63	64	55	58	77	59	60	53	56	74	58	59	51	54	
USA, AK	Galena	151	78	61	59	61	62	63	64	57	58	74	59	60	55	56	71	58	59	53	54	
USA, AK	Gulkana	1578	77	58	55	58	59	60	61	50	53	73	56	57	48	51	69	55	56	48	50	
USA, AK	Homer	72	65	56	55	56	57	57	58	53	54	62	55	55	53	53	60	54	54	52	52	
USA, AK	Juneau	23	74	60	58	60	61	61	62	55	57	69	58	59	53	56	66	57	58	54	55	
USA, AK	Kenai	95	68	56	54	56	57	57	58	53	55	65	55	56	51	53	62	54	55	51	52	
USA, AK	Ketchikan	95	71	60	59	60	61	61	62	58	59	68	59	60	56	57	66	58	59	56	56	
USA, AK	King Salmon	49	71	58	56	58	59	59	60	53	56	67	56	57	52	54	64	55	56	52	52	
USA, AK	Kodiak, State USCG Base	112	68	58	57	58	59	59	60	55	56	65	56	57	53	55	62	55	55	53	53	
USA, AK	Kotzebue	16	68	59	58	59	60	60	61	56	57	64	58	58	54	55	61	56	56	53	54	
USA, AK	McGrath	338	77	60	58	60	61	62	63	53	57	73	58	59	52	55	70	56	57	52	54	
USA, AK	Middleton Island	46	62	54	53	54	55	55	55	51	52	60	51	52	50	51	59	51	52	50	50	
USA, AK	Nenana	361	80	60	57	61	61	62	63	54	57	76	59	60	52	55	73	57	58	52	53	
USA, AK	Nome	23	69	57	55	57	58	58	59	53	55	65	55	56	51	53	61	54	54	51	51	
USA, AK	Northway	1722	78	58	55	58	59	60	61	50	54	74	57	58	49	53	71	56	57	49	51	
USA, AK	Port Heiden	95	64	54	53	54	55	55	56	52	51	61	52	53	50	50	59	51	52	47	49	
USA, AK	Saint Paul Island	30	54	51	51	51	51	51	52	49	50	52	50	50	48	49	51	49	49	48	48	
USA, AK	Sitka	66	66	59	58	59	59	60	60	57	58	64	58	58	57	57	61	57	57	57	56	
USA, AK	Talkeetna	358	77	60	58	60	61	62	63	55	57	73	58	59	54	56	70	57	58	52	54	
USA, AK	Valdez	33	69	56	54	56	57	57	58	52	53	66	55	56	50	53	62	54	55	51	52	
USA, AK	Yakutat	30	66	56	55	56	57	57	58	56	56	63	55	56	55	55	60	54	54	54	54	
USA, AL	Anniston	610	95	76	73	76	77	78	79	75	77	93	76	77	75	76	90	75	76	74	75	
USA, AL	Birmingham	630	94	75	72	75	76	77	78	74	75	92	75	76	73	74	90	74	75	72	73	
USA, AL	Dothan	400	95	76	73	76	77	78	79	77	77	93	76	77	76	76	92	76	77	75	76	
USA, AL	Huntsville	643	94	75	72	75	76	77	78	74	75	92	74	75	73	74	90	74	75	72	73	
USA, AL	Mobile	220	94	77	75	77	78	79	80	76	77	92	76	77	76	76	91	76	77	75	76	
USA, AL	Montgomery	203	95	76	73	77	77	78	79	75	76	93	76	77	74	75	91	76	77	75	75	
USA, AL	Muscle Shoals/Florence	551	96	76	73	76	77	78	79	74	76	94	75	76	74	75	92	74	75	73	74	
USA, AL	Ozark, Ft. Rucker	299	95	77	75	77	78	79	80	78	78	94	77	78	76	77	92	76	77	75	76	
USA, AL	Tuscaloosa	171	95	77	75	78	78	79	80	77	77	94	77	78	76	76	92	76	77	75	75	
USA, AR	Blytheville, Eaker AFB	256	97	78	75	79	79	80	81	79	78	95	77	78	76	77	93	77	78	74	76	
USA, AR	Fayetteville	1250	95	75	72	75	76	77	78	74	75	93	75	76	73	74	90	74	75	72	72	
USA, AR	Ft. Smith	463	99	76	73	77	78	78	80	75	75	96	76	77	73	74	93	75	76	72	73	
USA, AR	Little Rock, AFB	312	97	77	74	78	78	79	80	76	77	95	77	78	75	76	92	76	77	74	75	
USA, AR	Texarkana	390	97	77	74	78	78	79	80	76	77	95	77	78	75	76	93	76	77	74	75	
USA, AZ	Flagstaff	7011	85	56	50	55	56	57	59	55	58	83	55	55	54	56	80	55	55	52	55	
USA, AZ	Kingman	3389	99	64	58	64	65	66	69	67	67	97	63	64	59	62	95	62	63	56	59	
USA, AZ	Page	4278	99	62	56	62	63	64	67	57	60	97	62	63	55	58	95	61	62	53	56	
USA, AZ	Phoenix Intl Airport	1106	110	70	64	71	72	74	76	68	71	108	70	72	67	69	106	70	72	65	67	
USA, AZ	Phoenix, Luke AFB	1089	110	71	66	72	73	74	77	71	74	107	71	73	68	71	105	71	73	67	69	
USA, AZ	Prescott	5043	94	60	54	59	61	62	64	61	63	91	60	61	60	61	89	60	61	57	60	
USA, AZ	Safford, Agri Center	3117	102	66	60	66	67	68	71	64	67	99	66	67	64	66	97	65	66	61	64	
USA, AZ	Tucson	2556	104	65	59	65	67	68	71	66	69	102	65	67	64	67	100	65	67	63	66	
USA, AZ	Winslow	4882	95	60	54	59	61	62	64	58	61	93	60	61	56	59	91	59	60	55	58	
USA, AZ	Yuma	207	111	72	67	73	75	76	79	75	76	109	72	75	72	74	106	72	74	70	71	
USA, CA	Alameda, NAS	13	83	65	63	66	66	67	68	61	62	79	64	65	59	61	76	63	64	59	60	
USA, CA	Arcata/Eureka	217	70	60	59	60	61	61	62	59	60	67	59	60	59	59	65	58	58	58	58	
USA, CA	Bakersfield	492	104	70	65	71	72	73	76	62	64	101	69	71	59	62	99	69	71	58	60	
USA, CA	Barstow/Daggett	1926	107	68	62	68	70	71	74	62	66	105	67	69	60	63	102	67	69	56	59	
USA, CA	Blue Canyon	5285	84	59	54	58	59	60	62	53	54	81	57	57	50	52	79	56	56	48	50	
USA, CA	Burbank/Glendale	774	98	69	65	70	71	72	74	68	69	95	69	71	65	67	92	68	69	64	66	
USA, CA	Fairfield, Travis AFB	62	98	67	63	68	69	70	72	59	62	94	67	69	58	61	91	66	68	55	59	
USA, CA	Fresno	328	103	71	67	72	73	74	76	62	64	101	70	72	59	62	98	69	71	58	61	
USA, CA	Lancaster/Palmdale	2346	101	66	61	66	68	69	71	59	62	98	65	67	59	60	96	64	65	55	58	
USA, CA	Lemoore, Reeves NAS	236	103	72	68	73	74	75	77	66	67	101	71	73	63	65	98	70	72	60	62	
USA, CA	Long Beach	39	92	67	64	68	69	69	71	65	67	88	67	68	65	66	84	66	67	64	65	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
USA, CA	Los Angeles	105	85	64	61	65	65	66	68	66	67	81	64	65	66	66	78	64	65	65	65	
USA, CA	Marysville, Beale AFB	112	101	70	66	71	72	73	75	60	63	98	69	71	59	61	95	68	70	57	60	
USA, CA	Merced, Castle AFB	187	99	69	65	70	71	72	74	61	64	97	69	71	61	62	94	68	70	57	60	
USA, CA	Mount Shasta	3543	91	62	57	62	63	64	66	52	56	88	61	62	52	53	85	60	61	49	51	
USA, CA	Mountain View, Moffet NAS	39	88	65	62	66	67	67	69	61	62	84	65	66	60	61	80	64	65	58	60	
USA, CA	Ontario	942	102	71	67	72	73	74	76	68	70	98	70	72	65	68	95	69	71	64	66	
USA, CA	Oxnard, Pt. Mugu NAWS	7	83	62	59	63	63	64	66	67	68	79	64	65	66	66	77	64	65	64	65	
USA, CA	Paso Robles	837	102	68	63	69	70	71	73	57	61	98	67	69	54	58	95	65	67	54	57	
USA, CA	Red Bluff	354	105	70	65	71	72	73	76	60	65	102	69	71	59	62	98	67	69	57	61	
USA, CA	Riverside, March AFB	1539	101	68	63	68	70	71	73	63	67	98	68	70	62	65	95	67	69	61	62	
USA, CA	Sacramento, Mather Field	95	101	69	65	70	71	72	74	58	61	97	68	70	56	60	95	67	69	55	58	
USA, CA	Sacramento, McClellan AFB	75	102	70	66	71	72	73	75	60	63	98	69	71	59	61	95	68	70	57	60	
USA, CA	Sacramento, Metro	23	100	69	65	70	71	72	74	61	62	97	69	71	58	61	94	68	70	58	59	
USA, CA	Salinas	85	83	63	60	64	64	65	66	60	62	78	62	63	60	60	75	61	62	58	59	
USA, CA	San Bernardino, Norton AFB	1158	103	70	65	71	72	73	75	66	68	101	70	72	64	66	97	69	71	62	65	
USA, CA	San Diego Intl Airport	30	85	67	65	68	68	69	70	71	70	81	67	68	68	68	79	67	68	67	67	
USA, CA	San Diego, Miramar NAS	420	92	69	66	70	71	71	73	66	68	88	67	68	66	67	85	67	68	63	65	
USA, CA	San Francisco	16	83	63	60	64	64	65	66	55	59	78	62	63	56	58	74	61	62	56	57	
USA, CA	San Jose Intl Airport	56	93	67	64	68	69	70	71	61	63	89	66	68	59	61	86	65	66	59	60	
USA, CA	Santa Barbara	10	83	64	62	65	65	66	67	65	66	80	64	65	63	65	77	64	65	62	63	
USA, CA	Santa Maria	240	86	63	60	64	65	65	67	58	61	82	62	63	58	60	78	61	62	58	59	
USA, CA	Stockton	26	100	69	65	70	71	72	74	59	62	97	68	70	58	60	94	67	69	55	59	
USA, CA	Victorville, George AFB	2874	101	65	59	65	66	68	70	61	65	98	65	66	59	61	96	64	65	57	59	
USA, CO	Alamosa	7543	84	55	49	54	55	56	58	53	55	82	55	55	52	54	80	54	54	50	52	
USA, CO	Colorado Springs	6171	90	58	52	57	58	59	61	56	59	87	58	58	55	57	84	58	58	54	56	
USA, CO	Craig	6283	88	57	51	56	57	58	60	50	53	85	56	56	49	52	83	55	55	45	50	
USA, CO	Denver	5331	93	60	54	59	61	62	64	58	60	90	59	60	55	58	87	59	59	53	57	
USA, CO	Eagle	6539	88	58	52	57	58	59	61	53	57	86	57	57	51	55	83	57	57	50	53	
USA, CO	Grand Junction	4839	96	61	55	60	62	63	65	56	60	94	60	61	55	58	92	60	61	53	56	
USA, CO	Limon	5364	90	60	54	59	60	61	63	57	60	88	60	60	56	59	85	59	59	55	58	
USA, CO	Pueblo	4721	97	62	56	61	63	64	66	60	63	94	62	63	58	62	92	62	63	57	60	
USA, CO	Trinidad	5761	93	61	55	60	61	62	65	56	60	90	60	60	55	58	87	60	60	54	57	
USA, CT	Bridgeport	16	86	73	71	73	74	74	75	73	74	84	72	73	71	72	82	71	72	71	71	
USA, CT	Hartford, Brainard Field	20	91	73	71	74	74	75	76	72	73	88	72	73	70	71	85	70	71	69	70	
USA, CT	Windsor Locks, Bradley Field	180	92	73	70	74	74	75	76	72	72	88	71	72	70	71	85	70	71	68	69	
USA, DE	Dover, AFB	30	93	76	74	77	77	78	79	76	77	89	75	76	75	76	87	74	75	73	74	
USA, DE	Wilmington	79	91	75	73	75	76	77	78	75	75	89	74	75	73	74	86	73	74	72	72	
USA, FL	Apalachicola	20	92	79	77	79	80	80	81	79	79	90	78	79	78	78	89	78	79	76	77	
USA, FL	Cape Canaveral, NASA	10	92	78	76	78	79	79	80	77	78	90	78	79	76	77	89	77	78	76	76	
USA, FL	Daytona Beach	36	92	77	75	77	78	78	80	76	77	90	77	78	76	76	88	77	78	75	76	
USA, FL	Ft. Lauderdale/Hollywood	23	92	78	76	78	79	79	80	79	78	90	78	79	78	78	89	78	79	76	77	
USA, FL	Ft. Myers	16	94	77	75	78	78	79	80	77	78	93	77	78	77	78	92	77	78	76	77	
USA, FL	Gainesville	151	94	77	75	77	78	79	80	77	77	92	77	78	76	76	90	76	77	75	76	
USA, FL	Homestead, AFB	7	92	79	77	79	80	80	81	78	79	90	79	80	77	78	89	78	79	78	77	
USA, FL	Jacksonville, Cecil Field NAS	82	96	76	73	77	77	78	79	75	76	95	76	77	74	75	93	76	77	73	75	
USA, FL	Jacksonville, Intl Airport	30	94	77	75	78	78	79	80	77	77	93	77	78	76	76	91	77	78	74	76	
USA, FL	Jacksonville, Mayport Naval Air Station	16	95	78	76	79	79	80	81	78	78	92	78	79	77	77	90	77	78	76	77	
USA, FL	Key West	20	90	79	78	79	80	80	81	79	79	89	79	80	78	78	89	79	80	78	77	
USA, FL	Melbourne	36	93	79	77	79	80	80	81	80	80	91	79	80	79	79	89	79	80	78	78	
USA, FL	Miami, Intl Airport	13	91	77	75	77	78	78	79	78	78	90	77	78	76	77	89	77	78	75	76	
USA, FL	Miami, New Tamiami A	10	92	78	76	78	79	79	80	77	78	91	78	79	76	77	90	77	78	76	76	
USA, FL	Milton, Whiting Field NAS	200	95	78	76	78	79	80	81	78	78	93	77	78	77	77	92	76	77	76	76	
USA, FL	Orlando	105	94	76	74	77	77	78	79	76	77	93	76	77	76	76	92	76	77	75	76	
USA, FL	Panama City, Tyndall AFB	16	91	79	77	79	80	80	81	82	81	89	79	80	80	80	88	79	80	79	79	
USA, FL	Pensacola, Sherman AFB	30	93	78	76	78	79	79	81	78	79	92	78	79	77	78	90	78	79	76	76	
USA, FL	Saint Petersburg	10	94	80	78	80	81	81	82	80	80	93	79	80	80	80	92	79	80	79	79	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
USA, FL	Sarasota/Bradenton	30	93	80	78	80	81	81	82	80	79	92	79	80	78	79	90	79	80	77	78	
USA, FL	Tallahassee	69	95	77	75	78	78	79	80	77	77	93	76	77	76	76	91	76	77	75	76	
USA, FL	Tampa, Intl Airport	10	92	77	75	77	78	78	80	77	78	91	77	78	76	77	90	77	78	75	76	
USA, FL	Valparaiso, Eglin AFB	85	92	78	76	78	79	79	80	79	79	90	78	79	78	78	89	77	78	77	77	
USA, FL	Vero Beach	26	92	77	75	77	78	78	80	77	77	90	78	79	76	77	89	77	78	76	76	
USA, FL	West Palm Beach	20	91	78	76	78	79	79	80	77	77	90	78	79	76	77	89	77	78	75	76	
USA, GA	Albany	194	96	76	73	77	77	78	79	75	77	95	70	72	74	76	93	75	76	75	75	
USA, GA	Athens	810	94	75	72	75	76	77	78	74	75	92	75	76	73	74	90	74	75	73	73	
USA, GA	Atlanta	1033	93	75	72	75	76	77	78	73	74	91	74	75	72	73	88	73	74	71	72	
USA, GA	Augusta	148	96	76	73	77	77	78	79	75	76	94	76	77	74	75	92	75	76	73	74	
USA, GA	Brunswick	20	93	78	76	78	79	79	81	78	78	91	79	80	77	78	88	78	79	76	77	
USA, GA	Columbus, Ft. Benning	233	97	76	73	77	77	78	80	76	77	94	76	77	76	76	92	76	77	75	75	
USA, GA	Columbus, Metro Airport	397	95	76	73	76	77	78	79	76	76	93	75	76	75	75	91	75	76	73	74	
USA, GA	Macon	361	96	76	73	77	77	78	79	75	76	94	75	76	74	75	92	75	76	73	74	
USA, GA	Marietta, Dobbins AFB	1070	94	74	71	74	75	76	77	73	74	91	74	75	72	73	89	74	75	71	72	
USA, GA	Rome	643	96	74	71	75	75	76	78	74	75	94	74	75	73	74	91	74	75	72	73	
USA, GA	Savannah	49	95	77	75	78	78	79	80	75	77	93	76	77	74	76	91	76	77	75	75	
USA, GA	Valdosta, Moody AFB	233	95	77	75	77	78	79	80	76	77	94	77	78	76	76	92	76	77	75	76	
USA, GA	Valdosta, Regional Airport	203	95	77	75	78	78	79	80	77	77	94	76	77	76	76	92	76	77	75	76	
USA, GA	Waycross	151	96	76	73	77	77	78	79	73	75	94	76	77	74	75	93	75	76	73	74	
USA, HI	Ewa, Barbers Point NAS	49	92	73	71	74	74	75	76	62	74	90	72	73	71	72	89	72	73	71	71	
USA, HI	Hilo	36	85	74	73	74	75	75	76	74	75	84	74	75	74	74	83	73	74	73	73	
USA, HI	Honolulu	16	89	73	71	73	74	75	76	73	74	88	73	74	72	72	87	73	74	70	71	
USA, HI	Kahului	66	89	74	72	74	75	75	77	73	74	88	74	75	73	73	87	73	74	72	72	
USA, HI	Kaneohe, MCAS	10	86	75	74	75	76	76	77	77	76	85	74	75	75	75	84	74	75	74	74	
USA, HI	Lihue	148	85	75	74	75	76	76	77	75	75	85	74	75	74	74	84	74	75	72	73	
USA, HI	Molokai	449	88	73	71	73	74	74	75	73	74	87	73	74	72	73	86	72	73	71	71	
USA, IA	Burlington	699	94	76	74	76	77	78	79	74	75	91	76	77	73	74	88	73	74	73	72	
USA, IA	Cedar Rapids	869	93	75	73	75	76	77	78	74	75	89	74	75	72	74	86	72	73	70	71	
USA, IA	Des Moines	965	93	76	74	76	77	78	79	74	74	90	74	75	72	73	87	73	74	71	71	
USA, IA	Ft. Dodge	1165	92	75	73	75	76	77	78	73	74	88	73	74	71	72	86	71	72	71	70	
USA, IA	Lamoni	1122	96	74	71	74	75	76	77	73	74	92	74	75	72	73	89	72	73	71	71	
USA, IA	Mason City	1214	91	74	72	74	75	75	77	74	75	88	73	74	71	73	85	71	72	71	71	
USA, IA	Ottumwa	846	95	75	72	75	76	77	78	74	75	92	75	76	72	74	88	73	74	71	72	
USA, IA	Sioux City	1102	94	75	72	75	76	77	78	74	75	90	74	75	72	73	88	72	73	71	71	
USA, IA	Spencer	1339	91	75	73	75	76	76	78	73	74	88	73	74	71	72	85	71	72	70	70	
USA, IA	Waterloo	879	91	75	73	75	76	76	78	74	74	88	73	74	71	72	85	71	72	71	71	
USA, ID	Boise	2867	96	63	58	63	64	65	68	54	58	94	63	64	50	55	91	62	63	49	53	
USA, ID	Burley	4150	94	63	58	63	64	65	67	58	60	90	62	63	56	58	87	61	62	52	56	
USA, ID	Idaho Falls	4741	92	61	56	60	62	63	65	54	58	89	60	61	53	56	86	60	61	50	54	
USA, ID	Lewiston	1437	97	65	60	66	67	68	70	54	58	93	64	66	51	56	90	63	65	50	54	
USA, ID	Mountain Home, AFB	2995	99	63	57	63	64	66	68	53	58	96	62	63	49	54	93	61	62	48	52	
USA, ID	Mullan	3317	87	62	58	62	63	64	65	57	60	84	61	62	55	58	80	60	61	54	56	
USA, ID	Pocatello	4478	93	61	55	61	62	63	65	54	57	90	60	61	51	55	87	59	60	49	53	
USA, IL	Belleville, Scott AFB	453	95	78	76	78	79	80	81	76	77	93	77	78	74	76	90	76	77	73	74	
USA, IL	Chicago, Meigs Field	623	92	74	72	74	75	76	77	73	74	89	73	74	73	72	86	71	72	71	71	
USA, IL	Chicago, O'Hare Intl A	673	91	74	72	74	75	76	77	73	74	88	73	74	71	72	86	71	72	71	71	
USA, IL	Decatur	682	94	76	74	76	77	78	79	75	76	91	75	76	74	75	88	74	75	72	73	
USA, IL	Glenview, NAS	653	93	75	73	75	76	77	78	74	74	89	73	74	72	72	87	71	72	70	70	
USA, IL	Marseilles	738	93	74	71	74	75	76	77	74	75	89	73	74	72	73	86	71	72	70	71	
USA, IL	Moline/Davenport IA	594	93	76	74	76	77	78	79	74	75	90	74	75	73	73	87	73	74	71	72	
USA, IL	Peoria	663	92	76	74	76	77	77	79	74	75	89	74	75	74	74	86	73	74	72	72	
USA, IL	Quincy	768	94	76	74	76	77	78	79	74	76	91	75	76	73	74	88	74	75	73	73	
USA, IL	Rockford	741	91	74	72	74	75	76	77	73	74	88	73	74	71	73	85	71	72	71	71	
USA, IL	Springfield	614	93	76	74	76	77	78	79	76	76	91	75	76	73	75	88	74	75	73	73	
USA, IL	West Chicago	758	91	75	73	75	76	76	78	75	76	88	74	75	73	74	86	72	73	71	71	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition									1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify
USA, IN	Evansville	387	94	77	75	77	78	79	80	75	76	92	76	77	74	75	90	75	76	73	73
USA, IN	Ft. Wayne	827	90	74	72	74	75	75	77	74	74	88	73	74	72	72	85	71	72	71	71
USA, IN	Indianapolis	807	91	75	73	75	76	76	78	75	75	88	74	75	74	74	86	73	74	72	73
USA, IN	Lafayette, Purdue Univ	607	93	75	73	75	76	77	78	76	76	90	75	76	74	74	88	73	74	72	73
USA, IN	Peru, Grissom AFB	810	93	75	73	75	76	77	78	76	76	89	75	76	74	75	87	73	74	72	73
USA, IN	South Bend	774	90	73	71	73	74	75	76	74	74	87	72	73	72	72	85	71	72	70	71
USA, IN	Terre Haute	584	93	76	74	76	77	78	79	77	77	90	76	77	75	76	88	75	76	73	74
USA, KS	Concordia	1483	100	73	69	73	74	75	77	72	74	96	72	73	71	72	93	72	73	69	70
USA, KS	Dodge City	2592	100	70	65	70	71	72	74	68	70	97	70	71	67	68	94	69	70	64	67
USA, KS	Ft. Riley, Marshall AAF	1066	99	75	72	75	76	77	79	74	75	96	74	75	72	73	93	74	75	70	71
USA, KS	Garden City	2890	100	69	64	69	70	71	73	67	69	97	69	70	65	67	94	69	70	64	66
USA, KS	Goodland	3688	97	66	61	66	67	68	70	64	66	94	66	67	63	65	91	65	66	61	63
USA, KS	Russell	1864	100	72	68	72	73	74	76	71	72	96	72	73	69	71	94	72	73	67	69
USA, KS	Salina	1273	101	74	70	74	76	76	78	72	74	97	73	74	71	72	94	73	74	70	71
USA, KS	Topeka	886	96	75	72	75	76	77	78	75	76	93	75	76	74	74	90	75	76	72	73
USA, KS	Wichita, Airport	1339	100	73	69	73	75	75	77	72	73	97	73	74	71	72	94	73	74	68	71
USA, KS	Wichita, McConnell AFB	1371	100	73	69	73	75	75	77	72	74	97	73	74	71	72	94	73	74	70	71
USA, KY	Bowling Green	548	94	76	74	76	77	78	79	74	76	91	75	76	73	75	118	74	77	72	74
USA, KY	Covington/Cincinnati A	876	91	74	72	74	75	76	77	74	74	89	73	74	72	73	86	72	73	71	72
USA, KY	Ft. Campbell, AAF	571	95	77	75	77	78	79	80	77	77	93	76	77	74	76	90	76	77	73	74
USA, KY	Ft. Knox, Godman AAF	755	94	76	74	76	77	78	79	74	76	92	74	75	73	74	89	74	75	72	73
USA, KY	Jackson	1381	90	74	72	74	75	75	76	74	74	87	73	74	73	73	85	72	73	71	71
USA, KY	Lexington	988	91	74	72	74	75	76	77	74	74	89	73	74	71	72	86	72	73	71	71
USA, KY	Louisville	489	93	76	74	76	77	78	79	74	75	90	75	76	73	74	88	74	75	72	73
USA, KY	Paducah	413	96	77	74	77	78	79	80	76	77	93	76	77	75	76	92	75	76	75	75
USA, LA	Alexandria, England AFB	89	95	78	76	78	79	80	81	78	78	94	78	79	77	77	92	77	78	76	76
USA, LA	Baton Rouge	69	94	78	76	78	79	80	81	77	78	92	77	78	76	77	91	77	78	75	76
USA, LA	Bossier City, Barksdale AFB	167	96	77	74	78	78	79	80	77	77	94	77	78	75	76	93	77	78	74	76
USA, LA	Lafayette	43	94	78	76	78	79	80	81	77	78	93	78	79	77	77	91	77	78	76	77
USA, LA	Lake Charles	33	93	78	76	78	79	79	81	77	78	91	78	79	77	78	90	77	78	76	77
USA, LA	Leesville, Ft. Polk	328	95	77	75	77	78	79	80	76	77	94	76	77	76	76	92	76	77	75	76
USA, LA	Monroe	79	96	78	76	79	79	80	81	78	78	94	78	79	77	77	93	77	78	76	77
USA, LA	New Orleans, Intl Airport	30	93	79	77	79	80	80	81	78	79	92	78	79	77	78	90	78	79	78	77
USA, LA	New Orleans, Lakefront A	10	93	78	76	78	79	79	81	79	79	92	78	79	78	78	90	77	78	76	77
USA, LA	Shreveport	259	97	77	74	78	78	79	80	75	76	95	77	78	75	76	93	76	77	74	75
USA, MA	Boston	30	91	73	71	74	74	75	76	70	72	87	71	72	70	71	84	70	71	68	69
USA, MA	East Falmouth, Otis ANGB	131	85	72	70	72	73	73	74	73	74	82	72	73	72	72	79	69	70	70	71
USA, MA	Weymouth, S Weymth NAS	161	92	73	70	74	74	75	76	73	74	87	72	73	72	72	85	71	72	70	70
USA, MA	Worcester	1010	85	71	69	71	72	72	73	71	71	83	69	70	69	69	80	68	69	67	68
USA, MD	Baltimore, BWI Airport	154	93	75	73	76	76	77	78	75	75	91	74	75	72	74	88	73	74	71	72
USA, MD	Camp Springs, Andrews AF	282	94	75	72	76	76	77	78	75	75	91	74	75	73	74	88	73	74	71	73
USA, MD	Lex Park, Patuxent River N	39	93	76	74	77	77	78	79	76	76	90	75	76	73	75	87	74	75	73	74
USA, MD	Salisbury	52	93	77	75	77	78	79	80	77	78	90	76	77	75	76	88	75	76	74	75
USA, ME	Augusta	351	87	71	69	71	72	73	74	69	70	84	69	70	67	68	80	67	68	65	67
USA, ME	Bangor	194	87	71	69	71	72	73	74	69	70	84	69	70	67	68	81	67	68	65	67
USA, ME	Brunswick, NAS	75	87	71	69	71	72	73	74	69	70	84	69	70	67	69	80	67	68	67	67
USA, ME	Caribou	623	85	69	67	69	70	71	72	68	70	82	67	68	67	68	79	66	67	64	66
USA, ME	Limestone, Loring AFB	745	84	68	66	68	69	69	71	68	68	80	66	67	66	67	78	64	65	64	65
USA, ME	Portland	62	86	71	69	71	72	72	74	70	71	83	70	71	69	69	80	68	69	67	67
USA, MI	Alpena	692	87	71	69	71	72	72	74	71	71	84	69	70	68	69	81	67	68	67	67
USA, MI	Detroit, Metro	663	90	73	71	73	74	75	76	72	73	87	72	73	70	71	84	70	71	70	70
USA, MI	Flint	764	88	73	71	73	74	74	75	72	73	86	71	72	71	71	83	70	71	69	69
USA, MI	Grand Rapids	804	89	73	71	73	74	74	76	73	73	86	71	72	71	71	84	70	71	68	70
USA, MI	Hancock	1079	86	71	69	71	72	72	73	69	70	83	69	70	67	69	80	67	68	67	67
USA, MI	Harbor Beach	600	90	71	68	71	72	73	74	69	70	86	69	70	67	68	83	68	69	66	67
USA, MI	Jackson	1001	88	74	72	74	75	75	76	74	74	86	73	74	72	72	84	71	72	70	71

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
USA, MI	Lansing	873	89	73	71	73	74	74	76	73	73	86	72	73	71	72	84	70	71	70	70	
USA, MI	Marquette, Sawyer AFB	1220	86	69	67	69	70	70	72	68	69	83	68	69	66	67	79	65	66	65	66	
USA, MI	Marquette/Ishpeming A	1424	85	69	67	69	70	70	71	68	69	82	67	68	67	67	78	65	66	65	65	
USA, MI	Mount Clemens, ANGB	581	90	74	72	74	75	76	77	73	74	87	72	73	72	72	84	71	72	70	70	
USA, MI	Muskegon	633	85	71	69	71	72	72	73	72	72	83	70	71	70	70	81	69	70	68	69	
USA, MI	Oscoda, Wurtsmith AFB	633	89	72	70	72	73	74	75	71	72	86	71	72	69	70	83	69	70	68	68	
USA, MI	Pellston	719	87	71	69	71	72	72	74	71	70	85	69	70	68	69	81	68	69	67	67	
USA, MI	Saginaw	669	90	74	72	74	75	75	77	74	74	87	72	73	72	72	84	70	71	70	70	
USA, MI	Sault Ste. Marie	725	83	69	67	69	70	70	71	69	69	80	68	69	67	67	77	66	67	65	65	
USA, MI	Seul Choix Point	591	78	66	64	66	67	67	68	67	68	76	65	66	66	67	74	64	65	64	65	
USA, MI	Traverse City	623	89	71	69	71	72	73	74	70	71	86	70	71	68	69	83	68	69	66	67	
USA, MN	Alexandria	1424	89	72	70	72	73	73	75	71	72	86	70	71	70	70	83	69	70	67	68	
USA, MN	Brainerd, Pequot Lakes	1280	88	70	67	70	71	72	73	67	68	85	68	69	65	66	81	66	67	63	65	
USA, MN	Duluth	1417	84	69	67	69	70	70	71	68	68	81	67	68	65	66	78	65	66	63	64	
USA, MN	Hibbing	1352	85	70	68	70	71	71	72	70	70	81	68	69	68	68	78	66	67	65	66	
USA, MN	International Falls	1184	86	69	67	69	70	70	72	68	69	83	67	68	66	67	80	66	67	64	65	
USA, MN	Minneapolis-St. Paul	837	91	73	71	73	74	75	76	72	73	88	71	72	70	71	85	70	71	68	69	
USA, MN	Redwood Falls	1024	92	74	71	74	75	76	77	73	75	88	72	73	71	72	86	70	71	69	70	
USA, MN	Rochester	1319	88	72	70	72	73	73	75	73	73	85	71	72	71	71	82	70	71	69	69	
USA, MN	Saint Cloud	1024	91	72	69	72	73	74	75	72	72	88	71	72	70	70	85	70	71	68	68	
USA, MN	Tofte	791	79	64	62	64	65	65	66	62	64	75	62	63	60	61	71	61	62	59	59	
USA, MS	Biloxi, Keesler AFB	33	92	79	77	79	80	80	81	78	79	91	78	79	77	78	89	78	79	78	78	
USA, MS	Cape Girardeau	341	96	77	74	78	78	79	80	76	77	94	77	78	74	76	91	76	77	75	75	
USA, MS	Columbia	899	95	75	72	75	76	77	78	74	75	92	75	76	73	74	89	74	75	71	72	
USA, MS	Columbus, AFB	220	96	77	74	78	78	79	80	76	77	94	76	77	74	76	92	76	77	75	75	
USA, MS	Greenwood	154	96	78	76	79	79	80	81	78	78	94	78	79	77	77	93	77	78	76	76	
USA, MS	Jackson	331	95	77	75	77	78	79	80	77	77	93	76	77	76	76	92	76	77	75	75	
USA, MS	Joplin	981	96	75	72	75	76	77	78	74	75	94	75	76	73	74	91	74	75	72	72	
USA, MS	Kansas City	1024	96	75	72	75	76	77	78	74	75	93	75	76	73	74	90	74	75	72	73	
USA, MS	McComb	413	94	76	74	76	77	78	79	76	77	92	76	77	75	76	91	76	77	75	75	
USA, MS	Meridian	308	96	77	74	78	78	79	80	75	76	94	76	77	74	75	92	76	77	73	74	
USA, MS	Poplar Bluff	479	95	77	75	77	78	79	80	77	77	92	76	77	75	76	90	76	77	73	75	
USA, MS	Spickard/Trenton	886	96	74	71	74	75	76	78	75	76	93	73	74	72	73	89	72	73	71	71	
USA, MS	Springfield	1270	95	74	71	74	75	76	77	74	74	92	74	75	72	73	89	74	75	71	72	
USA, MS	St. Louis, Intl Airport	564	95	76	73	76	77	78	79	75	76	93	75	76	75	75	90	74	75	72	73	
USA, MS	Tupelo	361	96	76	73	77	77	78	79	76	76	94	76	77	74	75	92	75	76	73	74	
USA, MS	Warrensburg, Whiteman AF	869	96	76	73	76	77	78	79	75	76	93	76	77	74	75	90	75	76	72	73	
USA, MT	Billings	3570	93	63	58	63	64	65	67	54	59	90	62	63	54	57	87	61	62	50	55	
USA, MT	Bozeman	4475	91	61	56	61	62	63	65	55	58	87	60	61	51	56	85	59	60	50	53	
USA, MT	Butte	5545	86	57	52	56	57	58	60	52	54	84	56	56	47	52	80	55	55	45	50	
USA, MT	Cut Bank	3855	87	60	55	60	61	62	64	52	56	84	59	60	49	54	80	58	59	48	51	
USA, MT	Glasgow	2297	94	64	59	64	65	66	68	60	62	90	63	64	58	60	86	62	63	54	58	
USA, MT	Great Falls, Intl Airport	3658	92	61	56	61	62	63	65	54	57	88	60	61	51	55	85	59	60	49	53	
USA, MT	Great Falls, Malmstrom AF	3527	93	62	57	62	63	64	66	55	59	89	61	62	52	57	86	60	61	51	54	
USA, MT	Havre	2598	94	63	58	63	64	65	67	55	60	90	62	63	53	58	86	61	62	50	56	
USA, MT	Helena	3898	90	60	55	60	61	62	64	53	57	87	59	60	50	55	84	59	60	48	52	
USA, MT	Kalispell	2972	89	62	58	62	63	64	66	56	59	86	61	62	53	57	82	60	61	50	55	
USA, MT	Lewistown	4167	89	61	56	61	62	63	65	56	58	86	60	61	54	56	82	59	60	52	54	
USA, MT	Miles City	2628	97	66	61	66	67	68	70	60	63	93	65	66	58	61	90	64	65	57	59	
USA, MT	Missoula	3189	91	62	57	62	63	64	66	55	58	88	61	62	53	56	85	60	61	51	55	
USA, NC	Asheville	2169	88	72	70	72	73	73	74	72	72	85	71	72	70	71	83	70	71	69	70	
USA, NC	Cape Hatteras	10	88	78	77	78	79	79	80	78	78	86	77	78	77	77	85	77	78	76	76	
USA, NC	Charlotte	768	94	74	71	74	75	76	77	73	74	91	74	75	72	73	83	73	74	71	72	
USA, NC	Cherry Point, MCAS	30	95	79	77	79	80	81	82	78	78	92	78	79	77	77	90	77	78	76	76	
USA, NC	Fayetteville, Ft. Bragg	243	96	77	74	78	78	79	80	75	76	94	76	77	74	76	92	75	76	73	75	
USA, NC	Goldboro, Johnson AFB	108	96	77	75	78	78	79	80	76	76	94	76	77	74	76	91	76	77	73	75	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
USA, NC	Greensboro	886	92	75	73	75	76	77	78	73	74	90	74	75	72	73	88	73	74	71	72	
USA, NC	Hickory	1188	94	73	70	73	74	75	76	72	74	91	72	73	71	73	88	72	73	70	71	
USA, NC	Jacksonville, Nw Rvr MCAF	26	94	79	77	79	80	80	82	78	78	92	78	79	76	77	89	77	78	75	76	
USA, NC	New Bern	20	94	78	76	78	79	80	81	78	78	92	78	79	76	77	90	76	77	75	76	
USA, NC	Raleigh/Durham	440	93	76	74	76	77	78	79	75	75	90	75	76	73	74	88	74	75	73	73	
USA, NC	Wilmington	33	93	79	77	79	80	80	81	77	78	91	78	79	76	77	89	77	78	75	76	
USA, NC	Winston-Salem	971	92	74	71	74	75	76	77	74	74	89	74	75	72	73	87	73	74	71	72	
USA, ND	Bismarck	1660	93	68	64	68	69	70	72	66	68	90	67	68	64	65	86	66	67	62	63	
USA, ND	Devils Lake	1453	91	69	66	69	70	71	72	66	68	87	67	68	64	66	84	66	67	62	63	
USA, ND	Fargo	899	91	71	68	71	72	73	74	71	72	88	70	71	69	69	85	69	70	67	67	
USA, ND	Grand Forks, AFB	912	91	71	68	71	72	73	74	71	71	88	69	70	67	69	85	68	69	66	67	
USA, ND	Minot, AFB	1667	94	68	64	68	69	70	72	66	68	90	67	68	63	65	86	66	67	62	63	
USA, ND	Minot, Intl Airport	1716	92	67	63	67	68	69	71	65	67	88	66	67	63	64	84	65	66	61	62	
USA, ND	Williston	1906	96	67	63	67	68	69	71	64	66	92	66	67	61	63	87	65	66	59	61	
USA, NE	Bellevue, Offutt AFB	1047	95	76	73	76	77	78	79	76	76	91	75	76	73	74	88	74	75	72	73	
USA, NE	Grand Island	1857	97	72	68	72	73	74	76	71	72	93	72	73	69	70	90	70	71	68	69	
USA, NE	Lincoln	1188	97	74	71	74	75	76	78	74	75	94	74	75	71	73	91	73	74	71	71	
USA, NE	Norfolk	1552	95	74	71	74	75	76	77	71	73	92	72	73	70	71	89	72	73	68	70	
USA, NE	North Platte	2785	95	69	65	69	70	71	73	68	69	92	69	70	67	67	89	68	69	64	66	
USA, NE	Omaha, Eppley Airfield	981	95	75	72	75	76	77	78	74	75	92	75	76	73	73	89	73	74	71	72	
USA, NE	Omaha, WSO	1332	94	75	72	75	76	77	78	73	74	90	75	76	72	72	87	73	74	70	71	
USA, NE	Scottsbluff	3957	95	65	60	65	66	67	69	61	64	92	64	65	61	62	89	64	65	58	60	
USA, NE	Sidney	4304	95	63	57	63	64	65	67	60	62	92	63	64	58	60	89	63	64	54	58	
USA, NE	Valentine	2598	97	68	63	68	69	70	72	65	67	94	67	68	64	65	90	67	68	61	63	
USA, NH	Concord	344	90	71	68	72	72	73	74	70	71	87	70	71	69	70	84	68	69	68	68	
USA, NH	Lebanon	597	88	71	69	71	72	73	74	70	70	86	69	70	68	69	83	68	69	66	67	
USA, NH	Mount Washington	6266	60	56	55	56	56	56	56	58	58	58	54	54	56	56	56	54	54	53	54	
USA, NH	Portsmouth, Pease AFB	102	89	72	70	72	73	74	75	72	73	85	70	71	69	71	83	70	71	69	69	
USA, NJ	Atlantic City	66	91	74	72	74	75	76	77	73	75	88	73	74	73	74	86	72	73	72	72	
USA, NJ	Millville	82	92	75	73	75	76	77	78	75	75	89	74	75	72	74	87	73	74	72	73	
USA, NJ	Newark	30	93	74	72	75	75	76	77	73	74	90	73	74	73	73	87	71	72	70	71	
USA, NJ	Teterboro	10	92	76	74	76	77	78	79	74	76	89	74	75	73	74	87	73	74	72	72	
USA, NJ	Trenton, McGuire AFB	135	93	75	73	76	76	77	78	74	75	90	74	75	72	74	87	73	74	72	72	
USA, NM	Alamogordo, Holloman AFB	4094	98	63	57	63	64	65	68	60	65	96	63	64	59	62	93	63	64	59	61	
USA, NM	Albuquerque	5315	96	60	53	59	61	62	64	57	61	93	60	61	56	60	91	60	61	56	58	
USA, NM	Carlsbad	3294	101	65	59	65	66	67	70	66	69	98	66	67	65	68	96	66	67	64	67	
USA, NM	Clayton	4970	94	62	56	61	63	64	66	60	61	91	62	63	56	60	88	62	63	57	59	
USA, NM	Clovis, Cannon AFB	4295	96	64	58	64	65	66	68	65	66	93	64	65	63	65	91	65	66	62	64	
USA, NM	Farmington	5502	94	60	54	59	61	62	64	57	60	92	60	60	55	58	89	60	60	54	57	
USA, NM	Gallup	6470	89	57	51	56	57	58	60	55	59	87	56	56	54	57	85	56	56	52	56	
USA, NM	Roswell	3668	98	65	59	65	66	67	69	63	66	96	65	66	62	65	94	65	66	61	64	
USA, NM	Truth Or Consequences	4859	97	61	55	60	62	63	65	57	60	95	61	62	56	59	93	61	62	54	58	
USA, NM	Tucumcari	4065	98	64	58	64	65	66	68	61	65	95	65	66	61	64	93	64	65	59	63	
USA, NV	Elko	5135	95	60	54	59	61	62	64	52	57	91	59	60	48	54	90	58	59	46	51	
USA, NV	Ely	6263	89	56	50	55	56	57	60	51	55	87	56	56	49	53	85	55	55	46	50	
USA, NV	Las Vegas, Intl Airport	2178	108	66	60	66	68	69	72	60	65	106	66	68	60	63	103	65	67	58	60	
USA, NV	Mercury	3310	102	65	59	65	66	67	70	61	64	100	64	65	56	60	98	63	64	54	58	
USA, NV	N. Las Vegas, Nellis AFB	1870	108	68	62	68	70	71	74	63	67	106	67	69	61	64	104	66	68	59	61	
USA, NV	Reno	4400	95	61	55	61	62	63	65	50	56	92	60	61	48	53	90	59	60	45	50	
USA, NV	Tonopah	5427	94	58	51	57	59	60	62	51	56	92	57	58	50	53	89	57	58	48	50	
USA, NV	Winnemucca	4314	97	61	55	61	62	63	66	49	56	94	60	61	48	53	92	59	60	44	50	
USA, NY	Albany	292	90	71	68	72	72	73	74	70	72	86	70	71	69	70	84	69	70	68	68	
USA, NY	Binghamton	1631	85	70	68	70	71	71	72	70	70	82	69	70	68	69	80	67	68	67	67	
USA, NY	Buffalo	705	86	70	68	70	71	71	73	71	71	84	69	70	69	70	81	68	69	68	68	
USA, NY	Central Islip	98	88	73	71	73	74	74	76	73	74	85	72	73	73	73	83	70	71	72	71	
USA, NY	Elmira/Corning	955	90	72	69	72	73	74	75	71	72	87	71	72	69	70	84	69	70	69	69	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
USA, NY	Glens Falls	328	88	73	71	73	74	74	76	73	74	85	71	72	71	71	83	70	71	69	69	
USA, NY	Massena	213	87	72	70	72	73	73	75	72	72	84	71	72	70	70	82	69	70	68	68	
USA, NY	New York, JFK Airport	23	91	74	72	75	75	76	77	72	74	88	72	73	72	72	85	71	72	71	71	
USA, NY	New York, La Guardia A	30	92	74	72	75	75	76	77	73	74	89	73	74	73	73	86	72	73	70	71	
USA, NY	Newburgh	492	88	74	72	74	75	75	76	73	74	85	72	73	71	72	83	70	71	70	70	
USA, NY	Niagara Falls	591	87	72	70	72	73	73	74	72	73	85	71	72	71	71	83	69	70	69	69	
USA, NY	Plattsburgh, AFB	236	86	71	69	71	72	72	74	71	71	83	69	70	69	69	80	68	69	66	67	
USA, NY	Poughkeepsie	167	92	75	73	75	76	77	78	72	74	88	72	73	71	71	85	71	72	69	70	
USA, NY	Rochester	554	89	73	71	73	74	75	76	71	73	86	71	72	71	71	83	70	71	69	69	
USA, NY	Rome, Griffis AFB	505	88	71	69	71	72	73	74	70	71	86	70	71	69	70	83	69	70	68	68	
USA, NY	Syracuse	407	88	72	70	72	73	74	75	71	72	85	71	72	69	70	83	70	71	69	69	
USA, NY	Watertown	325	85	71	69	71	72	72	73	71	71	83	70	71	69	70	80	69	70	68	69	
USA, NY	White Plains	440	89	74	72	74	75	75	76	72	74	87	72	73	72	72	84	71	72	70	71	
USA, OH	Akron/Canton	1237	88	72	70	72	73	73	75	72	72	85	71	72	70	71	83	70	71	69	69	
USA, OH	Cincinnati, Lunken Field	482	93	74	71	74	75	76	77	73	75	90	75	76	72	74	88	73	74	72	72	
USA, OH	Cleveland	804	89	73	71	73	74	74	76	73	73	86	72	73	71	71	84	71	72	68	70	
USA, OH	Columbus, Intl Airport	817	90	74	72	74	75	75	77	73	73	88	73	74	71	72	86	71	72	71	71	
USA, OH	Columbus, Rickenbckr AFB	745	92	74	72	74	75	76	77	73	74	89	73	74	71	72	87	72	73	70	70	
USA, OH	Dayton, Intl Airport	1004	90	74	72	74	75	75	77	72	73	88	73	74	71	72	86	71	72	71	71	
USA, OH	Dayton, Wright-Patterson	823	92	74	72	74	75	76	77	75	75	89	74	75	72	73	87	73	74	70	71	
USA, OH	Findlay	810	90	74	72	74	75	75	77	72	74	87	72	73	72	72	85	71	72	70	71	
USA, OH	Mansfield	1296	88	73	71	73	74	74	75	73	73	85	72	73	71	71	83	71	72	70	70	
USA, OH	Toledo	692	90	73	71	73	74	75	76	74	74	87	72	73	72	72	85	71	72	70	70	
USA, OH	Youngstown	1184	88	72	70	72	73	73	75	70	72	85	70	71	70	70	83	69	70	68	69	
USA, OH	Zanesville	899	90	74	72	74	75	75	77	72	74	88	73	74	71	72	86	71	72	71	71	
USA, OK	Altus, AFB	1378	102	73	69	73	75	76	78	71	74	100	73	75	70	72	97	73	74	69	71	
USA, OK	Enid, Vance AFB	1306	101	74	70	74	76	76	78	72	73	98	74	75	71	71	95	73	74	69	70	
USA, OK	Lawton, Ft. Sill/Post Field	1188	99	73	69	73	75	75	77	72	74	97	73	74	71	73	95	73	74	70	71	
USA, OK	McAlester	771	98	76	73	76	77	78	80	75	76	96	76	77	74	75	93	76	77	73	74	
USA, OK	Oklahoma City, Tinker AFB	1293	98	74	71	74	75	76	78	73	75	96	75	76	72	74	94	74	75	71	72	
USA, OK	Oklahoma City, W. Rogers	1302	99	74	70	74	75	76	78	72	73	96	74	75	71	72	94	73	74	70	71	
USA, OK	Tulsa	676	100	76	73	77	78	78	80	75	76	97	76	77	73	74	94	75	76	72	73	
USA, OR	Astoria	23	76	64	62	64	65	65	66	60	61	72	62	63	59	60	69	61	62	59	59	
USA, OR	Eugene	374	91	67	64	68	69	69	71	60	62	87	65	66	58	60	83	64	65	56	59	
USA, OR	Hillsboro	203	92	69	66	70	71	71	73	63	64	88	67	68	59	61	84	65	66	57	60	
USA, OR	Klamath Falls	4091	91	64	59	64	65	66	67	56	58	87	62	63	54	57	85	61	62	54	55	
USA, OR	Meacham	4055	87	59	54	59	60	61	63	49	52	84	58	59	46	50	80	57	58	45	49	
USA, OR	Medford	1329	98	67	63	68	69	70	72	57	60	95	66	68	54	58	91	65	66	54	56	
USA, OR	North Bend	13	71	60	59	60	61	61	62	58	60	69	60	61	58	58	67	59	60	56	57	
USA, OR	Pendleton	1496	97	64	59	64	66	67	69	51	57	93	63	65	48	55	90	62	64	48	53	
USA, OR	Portland	39	90	67	64	68	69	69	71	60	62	86	66	67	58	60	83	64	65	57	59	
USA, OR	Redmond	3077	93	62	57	62	63	64	66	48	55	89	61	62	48	52	86	59	60	45	50	
USA, OR	Salem	200	92	67	64	68	69	69	71	57	61	87	66	67	57	59	83	64	65	56	58	
USA, OR	Sexton Summit	3842	83	60	56	60	61	61	63	52	55	80	59	60	52	53	77	58	59	50	52	
USA, PA	Allentown	384	90	73	71	73	74	75	76	72	73	88	72	73	70	71	85	71	72	69	70	
USA, PA	Altoona	1503	89	72	70	72	73	73	75	70	71	86	70	71	68	69	83	69	70	67	68	
USA, PA	Du Bois	1818	86	70	68	70	71	71	72	68	70	84	69	70	68	69	81	67	68	67	67	
USA, PA	Erie	738	85	72	70	72	73	73	74	71	72	83	70	71	70	70	80	70	71	68	69	
USA, PA	Harrisburg	308	92	74	72	74	75	76	77	73	74	89	73	74	73	73	86	72	73	70	72	
USA, PA	Philadelphia, Intl Airport	30	92	75	73	76	76	77	78	74	75	89	74	75	74	74	87	73	74	72	73	
USA, PA	Philadelphia, Northeast A	121	93	76	74	76	77	78	79	75	76	90	74	75	73	74	88	73	74	72	72	
USA, PA	Philadelphia, Willow Gr NA	361	93	75	73	75	76	77	78	74	74	90	74	75	72	73	88	72	73	71	71	
USA, PA	Pittsburgh, Allegheny Co A	1253	90	72	69	72	73	74	75	71	71	87	71	72	70	70	85	70	71	68	69	
USA, PA	Pittsburgh, Intl Airport	1224	89	72	70	72	73	73	75	70	71	86	70	71	70	70	84	69	70	67	68	
USA, PA	Wilkes-Barre/Scranton	948	88	71	69	71	72	73	74	71	71	85	70	71	70	70	83	69	70	68	69	
USA, PA	Williamsport	525	90	73	71	73	74	75	76	73	73	87	71	72	71	72	84	70	71	70	70	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify	
USA, RI	Providence	62	89	73	71	73	74	75	76	73	73	86	71	72	71	72	83	70	71	70	70	
USA, SC	Beaufort, MCAS	39	95	78	76	79	79	80	81	77	78	96	78	79	77	77	92	77	78	76	76	
USA, SC	Charleston	49	94	78	76	78	79	80	81	77	78	92	77	78	76	77	90	77	78	75	76	
USA, SC	Columbia	226	96	76	73	77	77	78	79	74	75	94	75	76	73	75	92	74	75	73	74	
USA, SC	Florence	148	96	76	73	77	77	78	79	77	77	94	76	77	74	76	92	76	77	75	75	
USA, SC	Greer/Greenville	971	93	74	71	74	75	76	77	73	74	91	74	75	72	73	88	73	74	71	72	
USA, SC	Myrtle Beach, AFB	26	93	79	77	79	80	80	81	78	79	90	78	79	77	78	88	78	79	76	77	
USA, SC	Sumter, Shaw AFB	243	95	76	73	77	77	78	79	74	76	93	75	76	73	75	90	75	76	72	74	
USA, SD	Chamberlain	1739	98	72	68	72	73	74	76	71	71	94	71	72	68	70	90	70	71	66	68	
USA, SD	Huron	1289	95	72	69	72	73	74	76	71	72	91	71	72	69	70	88	70	71	67	69	
USA, SD	Pierre	1742	99	70	66	70	72	72	74	68	70	95	69	70	65	68	91	68	69	65	66	
USA, SD	Rapid City	3169	95	65	60	65	66	67	69	64	65	91	65	66	61	63	88	64	65	60	61	
USA, SD	Sioux Falls	1427	94	73	70	73	74	75	76	71	73	90	72	73	71	71	87	71	72	69	69	
USA, TN	Bristol	1519	89	72	70	72	73	73	75	71	72	87	72	73	70	71	85	71	72	70	70	
USA, TN	Chattanooga	689	94	75	72	75	76	77	78	74	75	92	75	76	73	74	89	74	75	72	73	
USA, TN	Crossville	1880	89	73	71	73	74	74	75	73	74	87	72	73	71	72	85	72	73	70	71	
USA, TN	Jackson	433	95	77	75	77	78	79	80	76	76	93	76	77	74	75	91	76	77	75	75	
USA, TN	Knoxville	981	92	74	71	74	75	76	77	73	74	90	74	75	72	73	87	73	74	71	72	
USA, TN	Memphis	285	96	78	76	78	79	80	81	76	77	94	77	78	75	76	92	77	78	74	75	
USA, TN	Nashville	591	94	76	74	76	77	78	79	74	75	92	75	76	73	74	90	74	75	72	73	
USA, TX	Abilene	1791	99	71	67	71	72	73	75	70	71	97	71	72	68	70	95	71	72	67	69	
USA, TX	Amarillo	3606	96	67	62	67	68	69	71	65	67	94	66	67	64	65	92	66	67	62	64	
USA, TX	Austin	620	98	74	71	75	76	76	78	74	76	96	74	75	73	75	94	74	75	72	74	
USA, TX	Beaumont/Port Arthur	23	94	79	77	79	80	80	82	78	79	92	79	80	78	79	91	78	79	77	78	
USA, TX	Beeville, Chase Field NAS	190	101	77	74	78	79	79	81	79	80	98	77	78	78	78	96	77	78	77	78	
USA, TX	Brownsville	20	95	78	76	79	79	80	81	77	78	94	77	78	76	77	93	77	78	76	77	
USA, TX	College Station/Bryan	322	98	75	72	76	77	77	79	76	77	96	75	76	74	76	94	75	76	75	75	
USA, TX	Corpus Christi	43	95	78	76	79	79	80	81	78	79	94	78	79	77	78	92	78	79	76	77	
USA, TX	Dallas/Ft. Worth, Intl A	597	100	74	70	75	76	76	78	73	75	98	74	76	72	74	96	74	75	71	73	
USA, TX	Del Rio, Laughlin AFB	1083	101	72	68	73	74	75	77	74	75	98	73	74	72	74	96	72	73	71	72	
USA, TX	El Paso	3917	101	64	58	64	65	66	69	64	67	98	64	65	63	65	96	64	65	61	64	
USA, TX	Ft. Worth, Carswell AFB	650	100	75	72	76	77	77	79	75	76	97	75	76	73	75	96	75	76	72	74	
USA, TX	Ft. Worth, Meacham Field	709	100	75	72	76	77	77	79	73	75	98	74	76	72	74	96	74	75	71	73	
USA, TX	Guadalupe Pass	5453	92	61	55	60	61	62	65	59	62	89	60	60	58	60	87	60	60	57	59	
USA, TX	Houston, Hobby Airport	46	94	77	75	78	78	79	80	77	78	93	77	78	77	78	92	77	78	76	77	
USA, TX	Houston, Inter Airport	108	96	77	75	78	78	79	80	77	78	94	77	78	76	77	92	77	78	76	76	
USA, TX	Junction	1713	100	72	68	72	73	74	76	71	73	98	71	72	70	71	96	71	72	69	70	
USA, TX	Killeen, Ft. Hood	1014	98	74	71	74	75	76	78	74	75	96	73	74	73	74	95	74	75	72	73	
USA, TX	Kingsville, NAS	49	97	77	74	78	78	79	80	78	79	96	78	79	76	78	95	78	79	77	77	
USA, TX	Laredo	509	102	73	69	74	75	76	78	75	76	101	74	76	73	75	98	74	76	73	75	
USA, TX	Lubbock, Intl Airport	3241	97	67	62	67	68	69	71	68	69	95	67	68	67	68	93	67	68	65	67	
USA, TX	Lubbock, Reese AFB	3337	98	67	62	67	68	69	71	68	69	95	67	68	67	68	93	67	68	66	66	
USA, TX	Lufkin	289	97	76	73	77	77	78	80	75	77	95	77	78	76	76	93	76	77	74	75	
USA, TX	Marfa	4859	94	62	56	61	63	64	66	62	65	92	61	62	61	63	89	62	63	60	62	
USA, TX	McAllen	108	100	76	73	77	78	78	80	76	78	98	76	78	77	77	97	76	77	76	77	
USA, TX	Midland/Odessa	2861	99	67	62	67	68	69	72	68	69	97	67	68	67	68	95	67	68	65	67	
USA, TX	San Angelo	1909	100	70	66	70	72	72	75	69	71	97	70	71	68	70	95	70	71	67	69	
USA, TX	San Antonio, Intl Airport	794	98	73	70	74	75	75	77	75	76	96	73	74	73	75	94	74	75	72	74	
USA, TX	San Antonio, Kelly AFB	689	99	74	71	75	76	76	78	76	77	97	74	75	75	76	96	74	75	73	75	
USA, TX	San Antonio, Randolph AFB	761	98	74	71	75	75	76	78	74	76	96	74	75	73	75	94	74	75	72	74	
USA, TX	Sanderson	2838	97	67	62	67	68	69	71	70	70	95	68	69	68	69	94	68	69	67	68	
USA, TX	Victoria	118	95	76	74	77	77	78	79	77	78	94	76	77	76	77	92	77	78	75	76	
USA, TX	Waco	509	101	75	71	76	77	77	79	74	75	99	75	77	73	74	97	75	76	72	74	
USA, TX	Wichita Falls, Sheppard AF	1030	103	74	70	75	76	77	79	71	73	100	73	75	70	72	98	73	74	69	71	
USA, UT	Cedar City	5623	93	59	53	58	59	60	63	57	59	91	59	59	53	57	88	58	58	52	55	
USA, UT	Ogden, Hill AFB	4787	93	61	55	60	62	63	65	57	60	90	60	61	56	57	87	60	61	52	55	

## Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition									1.0% Design Condition					2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
Country (postal code)	Station	Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify
USA, UT	Salt Lake City	4226	96	62	56	62	63	64	66	57	60	94	62	63	55	58	92	61	62	53	50
USA, VA	Ft. Belvoir	69	95	78	76	78	79	80	81	76	77	93	76	77	74	75	89	75	76	73	74
USA, VA	Hampton, Langley AFB	10	94	78	76	78	79	80	81	77	77	91	77	78	76	76	88	76	77	75	75
USA, VA	Lynchburg	938	93	74	71	74	75	76	77	73	74	90	74	75	72	73	88	73	74	71	72
USA, VA	Newport News	43	95	78	76	79	79	80	81	76	77	92	77	78	74	76	89	76	77	73	75
USA, VA	Norfolk	30	93	77	75	77	78	79	80	76	76	91	76	77	73	75	88	75	76	74	74
USA, VA	Oceana, NAS	23	94	77	75	78	78	79	80	76	77	91	76	77	75	76	88	75	76	74	74
USA, VA	Quantico, MCAS	13	94	77	75	78	78	79	80	75	76	92	76	77	74	75	89	74	75	72	73
USA, VA	Richmond	177	94	76	74	77	77	78	79	75	76	92	75	76	75	75	89	74	75	72	74
USA, VA	Roanoke	1175	92	73	70	73	74	75	76	70	72	89	72	73	69	71	87	71	72	69	70
USA, VA	Sterling	322	93	75	73	75	76	77	78	73	74	90	74	75	72	73	88	73	74	71	72
USA, VA	Washington, R. Reagan A	66	95	70	67	71	72	72	74	76	76	92	76	77	74	75	89	74	75	72	74
USA, VT	Burlington	341	87	71	69	71	72	73	74	70	71	84	69	70	68	69	82	68	69	67	67
USA, VT	Montpelier/Barre	1165	85	70	68	70	71	71	72	68	69	83	68	69	66	67	80	67	68	66	66
USA, WA	Bellingham	157	79	65	63	65	66	66	67	62	61	76	64	65	60	60	74	62	63	58	59
USA, WA	Hanford	732	100	67	62	68	69	70	72	53	58	96	65	67	49	56	93	64	66	50	53
USA, WA	Olympia	200	87	67	64	68	68	69	70	59	61	83	65	66	58	60	79	64	65	56	58
USA, WA	Quillayute	203	80	62	60	63	63	64	65	57	60	74	61	62	56	58	70	59	60	56	57
USA, WA	Seattle, Intl Airport	449	85	65	62	66	66	67	68	57	60	81	64	65	57	59	78	62	63	56	57
USA, WA	Spokane, Fairchild AFB	2461	92	62	57	62	63	64	66	54	57	89	61	62	51	55	85	60	61	48	53
USA, WA	Stampede Pass	3967	78	57	53	57	58	58	60	50	53	74	56	57	48	51	71	54	55	48	50
USA, WA	Tacoma, McChord AFB	322	86	65	62	66	66	67	69	59	60	82	63	64	57	59	78	62	63	55	58
USA, WA	Walla Walla	1204	98	66	61	67	68	69	71	56	60	95	65	67	54	58	92	64	66	52	57
USA, WA	Wenatchee	1243	95	67	63	67	69	69	71	54	59	92	65	67	53	57	88	63	64	52	55
USA, WA	Yakima	1066	95	65	61	66	67	68	70	55	59	92	64	66	53	57	88	63	64	51	55
USA, WI	Eau Claire	906	90	73	71	73	74	75	76	72	73	87	71	72	71	71	84	70	71	68	69
USA, WI	Green Bay	702	88	73	71	73	74	74	75	73	73	85	72	73	71	71	82	70	71	69	69
USA, WI	La Crosse	663	91	74	72	74	75	76	77	73	75	88	73	74	72	73	85	71	72	71	71
USA, WI	Madison	866	90	73	71	73	74	75	76	72	73	87	72	73	70	71	84	70	71	68	69
USA, WI	Milwaukee	692	89	74	72	74	75	75	76	72	73	86	72	73	71	71	83	70	71	68	70
USA, WI	Wausau	1201	88	71	69	71	72	72	74	71	71	85	70	71	68	69	82	69	70	68	68
USA, WV	Bluefield	2858	85	69	66	69	70	70	71	69	69	83	69	70	68	68	80	67	68	67	67
USA, WV	Charleston	981	91	73	70	73	74	75	76	72	73	88	73	74	71	72	86	71	72	71	71
USA, WV	Elkins	1998	85	71	69	71	72	72	73	70	71	83	70	71	69	69	81	69	70	68	68
USA, WV	Huntington	837	91	74	72	74	75	76	77	73	74	89	73	74	73	73	86	72	73	71	72
USA, WV	Martinsburg	558	94	74	71	74	75	76	77	73	74	91	73	74	71	72	88	72	73	70	71
USA, WV	Morgantown	1247	89	72	70	72	73	73	75	71	72	87	71	72	71	71	85	70	71	70	70
USA, WV	Parkersburg	860	91	74	72	74	75	76	77	72	74	88	72	73	71	72	86	72	73	71	71
USA, WY	Big Piney	6969	83	54	48	53	54	55	57	45	50	80	53	53	43	48	78	52	52	38	45
USA, WY	Casper	5289	92	59	53	58	60	61	63	52	57	89	58	59	51	55	86	58	58	49	53
USA, WY	Cheyenne, Warren AFB	6142	87	58	52	57	58	59	61	55	58	85	57	57	54	56	82	57	57	52	55
USA, WY	Cody	5095	91	59	53	58	60	61	63	49	54	87	58	59	48	52	84	57	58	44	50
USA, WY	Gillette	4035	94	61	55	61	62	63	65	56	59	91	61	62	52	57	87	60	61	51	54
USA, WY	Lander	5558	90	59	53	58	59	60	63	52	56	87	58	58	51	53	85	57	57	47	51
USA, WY	Rock Springs	6759	86	54	48	53	54	55	57	49	54	84	54	54	47	51	82	53	53	45	49
USA, WY	Sheridan	3967	93	62	57	62	63	64	66	57	60	90	61	62	54	58	86	61	62	54	56
USA, WY	Worland	4245	96	63	57	63	64	65	67	57	61	93	63	64	57	59	90	62	63	54	57
Uzbekistan	Samarqand (Samarkand)	2375	96	67	63	67	68	69	71	60	62	94	66	67	58	58	92	66	67	56	58
Uzbekistan	Tashkent	1604	100	71	67	71	73	73	75	67	68	98	68	70	64	63	95	68	69	61	63
Vanuatu	Luganville	144	87	78	77	78	79	79	80	78	78	86	78	79	77	77	85	77	78	77	77
Venezuela	Caracas	157	92	84	83	84	85	85	85	85	86	91	83	84	84	84	90	83	83	83	84
Vietnam	Ho Chi Minh City	62	95	77	75	78	78	79	80	78	79	94	77	78	77	77	93	77	78	77	77
Wake Island	Wake Island	13	89	79	78	79	80	80	81	79	80	89	79	80	78	78	88	78	79	78	78
Wallis & Futuna Island	Wallis Islands	88	88	80	79	80	81	81	81	80	80	87	80	80	79	79	87	80	80	79	79
Yugoslavia	Belgrade	324	92	71	68	72	72	73	75	67	68	89	70	71	65	65	86	69	70	64	65
Yugoslavia	Palic	344	90	70	67	71	71	72	73	64	67	87	69	70	64	64	84	67	68	63	64

### Coolerado HMX Performance Table for ASHRAE Locations - US Units

ASHRAE Weather Station Location			0.4% Design Condition										1.0% Design Condition				2.0% Design Condition				
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V
		Elevation (ft)	0.4% DB	0.4% MWB	100 CFM / HMX	200 CFM / HMX	250 CFM / HMX	300 CFM / HMX	400 CFM / HMX	.4% DP Evaporate	.4% DP Dehumidify	1% DB	1% MWB	250 CFM / HMX	1% DP Evaporate	1% DP Dehumidify	2% DB	2% MWB	250 CFM / HMX	2% DP Evaporate	2% DP Dehumidify
Country (postal code)	Station																				
Yugoslavia	Podgorica (Titograd)	108	95	71	68	72	73	73	75	66	68	93	71	73	64	66	90	70	71	64	66
Zimbabwe	Harare	4931	86	62	58	62	62	63	65	65	66	84	61	61	63	65	83	61	61	64	65