

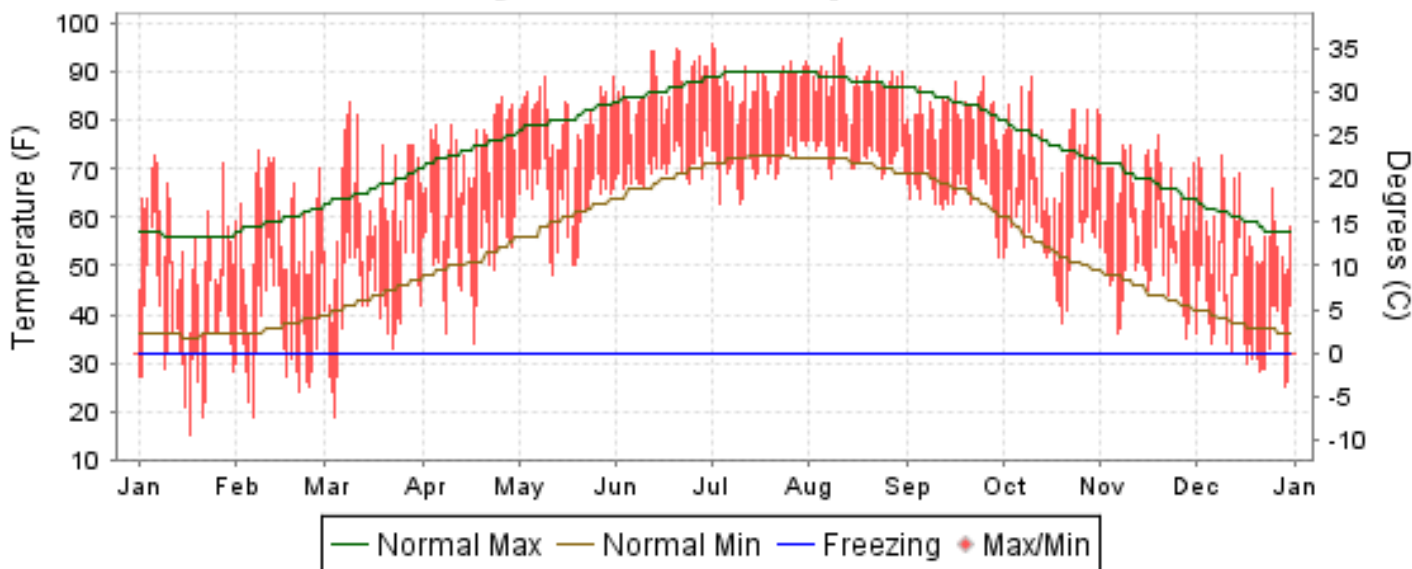


# 2009 LOCAL CLIMATOLOGICAL DATA ANNUAL SUMMARY WITH COMPARATIVE DATA

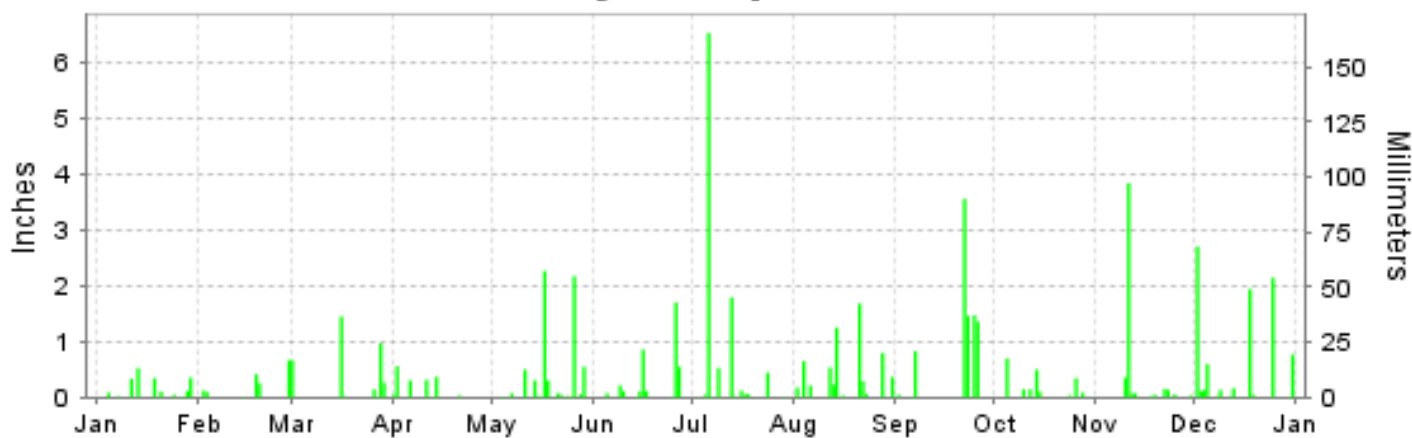
ISSN 0198-3792

## WILMINGTON, NORTH CAROLINA (KILM)

### Daily Max/Min Temperature



### Daily Precipitation



### Daily Station Pressure



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NATIONAL  
CLIMATIC DATA CENTER  
ASHEVILLE, NORTH CAROLINA

*Thomas R. Karl*  
DIRECTOR  
NATIONAL CLIMATIC DATA CENTER

# METEOROLOGICAL DATA FOR 2009

## WILMINGTON (KILM)

LATITUDE: 34° 16'N      LONGITUDE: -77° 54'W      ELEVATION (FT): GRND: 24    BARO: 33      TIME ZONE: EASTERN (UTC -5)      WBAN: 13748

ELEMENT		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR	
TEMPERATURE °F	MEAN DAILY MAXIMUM	54.5	58.6	63.9	73.8	80.4	87.2	88.1	88.4	81.8	73.2	67.1	57.3	72.9	
	HIGHEST DAILY MAXIMUM	73	74	84	85	89	95	96	97	89	89	81	73	97	
	DATE OF OCCURRENCE	06	08	09	26	31+	20	01	11	25	10	01	09	AUG 11	
	MEAN DAILY MINIMUM	35.9	35.5	43.5	52.5	63.1	70.2	71.0	72.7	65.2	55.8	48.5	38.1	54.3	
	LOWEST DAILY MINIMUM	15	19	19	34	48	66	63	68	52	38	35	25	15	
	DATE OF OCCURRENCE	17	06	04	17	12	10+	10+	24+	30	20	28	29	JAN 17	
	AVERAGE DRY BULB	45.2	47.1	53.7	63.2	71.8	78.7	79.6	80.6	73.5	64.5	57.8	47.7	63.6	
	MEAN WET BULB	41.2	41.5	48.2	56.3	66.0	71.8	72.3	73.9	67.5	59.9	53.4	43.9	58.0	
	MEAN DEW POINT	35.1	32.8	42.6	50.3	63.0	68.4	68.9	71.4	64.3	56.7	49.6	38.6	53.5	
	NUMBER OF DAYS WITH:														
	MAXIMUM >= 90°	0	0	0	0	0	10	14	13	0	0	0	0	0	37
	MAXIMUM <= 32°	1	0	0	0	0	0	0	0	0	0	0	0	0	1
MINIMUM <= 32°	14	12	4	0	0	0	0	0	0	0	0	9	39		
MINIMUM <= 0°	0	0	0	0	0	0	0	0	0	0	0	0	0		
H/C	HEATING DEGREE DAYS	607	495	363	104	23	0	0	0	2	97	219	530	2440	
	COOLING DEGREE DAYS	2	0	20	55	241	421	459	491	263	89	12	0	2053	
RH	MEAN (PERCENT)	71	61	70	67	77	74	73	78	77	78	78	73	73	
	HOUR 01 LST	76	74	81	84	89	87	86	89	87	86	87	80	84	
	HOUR 07 LST	79	73	80	75	77	74	77	81	81	82	85	77	78	
	HOUR 13 LST	57	41	52	46	63	58	57	61	62	64	60	58	57	
	HOUR 19 LST	74	60	72	68	79	75	76	82	82	84	83	78	76	
S	PERCENT POSSIBLE SUNSHINE														
W/O	NUMBER OF DAYS WITH:														
	HEAVY FOG(VISBY <= 1/4 MI)	6	1	1	4	1	1	1	0	1	0	4	2	22	
	THUNDERSTORMS	0	1	0	1	5	5	7	10	2	1	0	1	33	
CLOUDNESS	SUNRISE-SUNSET: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
	SATELLITE (> 12,000 FT.)														
	MIDNIGHT-MIDNIGHT: (OKTAS)														
	CEILOMETER (<= 12,000 FT.)														
SATELLITE (> 12,000 FT.)															
NUMBER OF DAYS WITH:															
CLEAR															
PARTLY CLOUDY															
CLOUDY															
PR	MEAN STATION PRESS. (IN.)	30.04	30.13	30.13	29.98	30.01	29.83	29.94	29.99	29.99	29.98	29.99	30.05	30.01	
	MEAN SEA-LEVEL PRESS. (IN.)	30.09	30.17	30.17	30.03	30.05	29.87	29.98	30.04	30.03	30.02	30.04	30.08	30.05	
WINDS	RESULTANT SPEED (MPH)	2.9	3.2	0.2	4.5	2.9	1.5	3.7	2.6	3.7	1.9	3.8	1.9	1.1	
	RES. DIR. (TENS OF DEGS.)	26	27	02	23	17	20	21	20	02	35	35	34	26	
	MEAN SPEED (MPH)	7.5	8.0	8.2	8.8	8.8	6.5	6.7	5.2	6.5	6.6	6.7	7.8	7.3	
	PREVAIL.DIR.(TENS OF DEGS.)	21	21	21	20	21	22	21	22	02	03	34	04	21	
	MAXIMUM 2-MINUTE WIND														
	SPEED (MPH)	38	32	29	36	26	32	24	38	22	24	28	31	38	
	DIR. (TENS OF DEGS.)	26	26	27	25	30	03	24	18	03	24	34	22	18	
	DATE OF OCCURRENCE	07	22	29	06	29	09	30	04	01	07	30	09	AUG 04	
	MAXIMUM 3-SECOND WIND:														
	SPEED (MPH)	51	47	40	46	41	40	31	46	30	30	36	44	51	
DIR. (TENS OF DEGS.)	28	27	27	29	30	03	24	19	09	22	33	20	28		
DATE OF OCCURRENCE	07	22	29	22	29	09	30	04	26	28	13	09	JAN 07		
PRECIPITATION	WATER EQUIVALENT:														
	TOTAL (IN.)	2.01	1.61	3.57	1.67	6.52	3.80	9.67	6.33	8.75	2.09	4.85	8.86	59.73	
	GREATEST 24-HOUR (IN.)	0.53	0.68	1.48	0.56	2.56	1.70	6.51	1.68	3.93	0.70	3.84	2.82	6.51	
	DATE OF OCCURRENCE	13	18-19	16-17	02	17-18	26	06	21	22-23	05	11-12	02-03	JUL 06	
	NUMBER OF DAYS WITH:														
PRECIPITATION 0.01	11	7	8	7	18	10	13	13	8	9	12	14	130		
PRECIPITATION 0.10	6	5	5	4	6	7	5	10	5	6	4	9	72		
PRECIPITATION 1.00	0	0	1	0	2	1	2	2	4	0	1	3	16		
SNOWFALL	SNOW,ICE PELLETS,HAIL														
	TOTAL (IN.)	0.9	0.1	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
	GREATEST 24-HOUR (IN.)	0.9	0.1	T	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.9	
	DATE OF OCCURRENCE	20	04	02										JAN 20	
	MAXIMUM SNOW DEPTH (IN.)	1	0	0	0	0	0	0	0	0	0	0	0	1	
	DATE OF OCCURRENCE	21												JAN 21	
NUMBER OF DAYS WITH:															
SNOWFALL >= 1.0	0	0	0	0	0	0	0	0	0	0	0	0	0		

# NORMALS, MEANS, AND EXTREMES WILMINGTON (KILM)

LATITUDE:  
34 ° 16'N

LONGITUDE:  
-77 ° 54'W

ELEVATION (FT):  
GRND: 24 BARO: 33

TIME ZONE:  
EASTERN (UTC -5)

WBAN: 13748

	ELEMENT	POR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	YEAR
TEMPERATURE °F	NORMAL DAILY MAXIMUM	30	56.3	59.5	66.2	74.1	80.6	86.4	89.9	88.3	84.1	75.6	67.8	59.6	74.0
	MEAN DAILY MAXIMUM	77	56.6	57.8	65.4	73.1	80.4	85.6	88.8	87.8	83.0	75.3	66.6	58.9	73.3
	HIGHEST DAILY MAXIMUM	58	82	85	89	95	98	104	102	103	98	95	87	82	104
	YEAR OF OCCURRENCE		1975	1962	1974	1967	1953	1952	1977	1999	1975	1986	1974	1998	JUN 1952
	MEAN OF EXTREME MAXS.	77	74.0	76.4	81.5	87.9	91.7	96.0	96.6	95.8	92.0	86.4	81.0	75.3	86.2
	NORMAL DAILY MINIMUM	30	35.8	37.5	43.7	51.2	59.8	67.6	72.3	71.0	65.9	53.9	45.1	38.1	53.5
	MEAN DAILY MINIMUM	77	36.4	37.0	44.0	51.6	60.4	67.6	71.8	71.0	65.5	54.6	45.1	37.9	53.6
	LOWEST DAILY MINIMUM	58	5	11	9	29	38	48	55	55	44	27	20	0	0
	YEAR OF OCCURRENCE		1985	1996	1980	2007	1989	1983	1988	2004	1981	1962	1970	1989	DEC 1989
	MEAN OF EXTREME MINS.	77	19.6	22.4	28.1	36.1	46.0	56.3	63.9	62.3	53.2	38.1	29.1	21.2	39.7
	NORMAL DRY BULB	30	46.1	48.5	55.0	62.7	70.2	77.0	81.1	79.7	75.0	64.8	56.5	48.9	63.8
	MEAN DRY BULB	77	46.5	47.4	54.7	62.4	70.4	76.7	80.3	79.5	74.2	65.0	55.8	48.4	63.4
	MEAN WET BULB	26	41.3	42.9	48.5	55.3	63.3	70.7	74.1	73.3	68.4	59.1	51.1	43.7	57.6
	MEAN DEW POINT	26	37.2	39.1	44.5	51.6	60.6	68.7	72.6	71.8	66.7	56.6	47.9	39.9	54.8
	NORMAL NO. DAYS WITH: MAXIMUM >= 90	30	0.0	0.0	0.0	0.9	2.3	8.8	17.1	12.2	4.8	0.2	0.0	0.0	46.3
	MAXIMUM <= 32	30	0.3	0.2	*	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.6
MINIMUM <= 32	30	12.4	9.5	3.7	0.3	0.0	0.0	0.0	0.0	0.0	0.1	3.1	10.2	39.3	
MINIMUM <= 0	30	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	*	0.0	
H/C	NORMAL HEATING DEG. DAYS	30	589	474	331	134	28	1	0	0	3	95	277	497	2429
	NORMAL COOLING DEG. DAYS	30	3	4	17	65	187	361	501	455	304	90	25	5	2017
RH	NORMAL (PERCENT)	30	71	69	69	68	73	76	78	80	79	76	74	72	74
	HOURLY 01 LST	30	79	78	80	81	88	89	90	91	91	88	84	81	85
	HOURLY 07 LST	30	81	80	82	81	85	86	87	91	91	89	86	83	85
	HOURLY 13 LST	30	57	53	52	48	55	59	63	64	63	56	54	56	57
	HOURLY 19 LST	30	72	68	67	64	71	74	76	80	81	81	78	75	74
S	PERCENT POSSIBLE SUNSHINE	51	56	59	64	70	67	66	64	62	61	64	63	59	63
W/O	MEAN NO. DAYS WITH: HEAVY FOG(VISBY <= 1/4 MI)	46	2.9	2.0	2.3	1.5	2.1	1.9	1.3	1.5	2.2	2.5	3.0	3.0	26.2
	THUNDERSTORMS	62	0.5	1.0	2.3	3.0	5.5	7.7	11.6	9.2	4.0	1.2	0.8	0.5	47.3
CLOUDNESS	MEAN: SUNRISE-SUNSET (OKTAS)														
	MIDNIGHT-MIDNIGHT (OKTAS)														
	MEAN NO. DAYS WITH: CLEAR	1	2.0	2.0	8.0		10.0	6.0							
	PARTLY CLOUDY			1.0	4.0		7.0	8.0							
	CLOUDY	1	5.0	3.0	9.0		2.0	7.0							
PR	MEAN STATION PRESSURE(IN)	26	30.09	30.07	30.03	29.97	29.98	29.97	29.98	29.99	30.00	30.04	30.08	30.10	30.03
	MEAN SEA-LEVEL PRES. (IN)	26	30.13	30.11	30.07	30.01	30.02	30.00	30.02	30.03	30.04	30.08	30.12	30.14	30.06
WINDS	MEAN SPEED (MPH)	26	8.2	8.4	9.2	9.3	8.3	7.6	7.3	6.6	7.3	6.8	7.1	7.4	7.8
	PREVAIL.DIR(TENS OF DEGS)	33	22	23	22	22	22	22	23	22	03	03	02	02	23
	MAXIMUM 2-MINUTE: SPEED (MPH)	14	38	44	60	48	44	46	53	56	67	37	38	43	67
	DIR. (TENS OF DEGS)		26	25	27	27	27	28	00	06	00	13	24	26	00
	YEAR OF OCCURRENCE		2009	2000	2005	2006	2002	2001	1996	1998	1996	2008	2002	2000	SEP 1996
	MAXIMUM 3-SECOND SPEED (MPH)	14	51	62	89	56	54	71	69	74	86	54	47	54	89
	DIR. (TENS OF DEGS)		28	24	27	26	27	28	00	17	00	12	03	27	27
YEAR OF OCCURRENCE		2009	2000	2005	2006	2002	2001	1996	2004	1996	2008	2006	2000	MAR 2005	
PRECIPITATION	NORMAL (IN)	30	4.52	3.66	4.22	2.94	4.40	5.36	7.62	7.31	6.79	3.21	3.26	3.78	57.07
	MAXIMUM MONTHLY (IN)	58	10.22	11.22	8.27	8.21	9.12	12.87	15.12	18.83	23.41	15.07	7.87	8.86	23.41
	YEAR OF OCCURRENCE		1991	1998	1994	1961	1956	1962	1966	2006	1999	2005	1972	2009	SEP 1999
	MINIMUM MONTHLY (IN)	58	0.68	1.01	0.93	0.16	0.95	0.89	1.65	1.66	0.70	0.17	0.49	0.48	0.16
	YEAR OF OCCURRENCE		2001	1976	1967	1995	1987	1984	1961	1968	1986	1953	1973	1955	APR 1995
	MAXIMUM IN 24 HOURS (IN)	58	3.08	5.00	4.81	3.52	5.02	7.73	6.58	9.56	14.84	8.15	4.82	3.88	14.84
	YEAR OF OCCURRENCE		1982	1998	1994	1961	1999	1966	1988	2006	1999	2005	1969	1980	SEP 1999
	NORMAL NO. DAYS WITH: PRECIPITATION >= 0.01	30	11.3	9.4	9.9	7.5	9.5	10.0	12.8	12.7	10.2	6.8	8.5	9.5	118.1
PRECIPITATION >= 1.00	30	1.2	1.0	1.3	0.9	1.0	1.7	2.4	2.1	2.1	0.9	1.1	1.0	16.7	
SNOWFALL	NORMAL (IN)	30	0.6	0.5	0.4	0.*	0.0	0.0	0.0	0.0	0.0	0.0	0.*	0.6	2.1
	MAXIMUM MONTHLY (IN)	58	6.1	12.5	6.6	T	T	T	T	0.0	0.0	0.0	T	15.3	15.3
	YEAR OF OCCURRENCE		2000	1973	1980	1996	1998	1995					1976	1989	DEC 1989
	MAXIMUM IN 24 HOURS (IN)	58	5.0	11.7	5.7	T	T	T	T	0.0	0.0	0.0	T	9.7	11.7
	YEAR OF OCCURRENCE		1988	1973	1980	1996	1998	1995	1996				1976	1989	FEB 1973
	MAXIMUM SNOW DEPTH (IN)	61	5	8	7	0	0	0	0	0	0	0	0	13	13
	YEAR OF OCCURRENCE		2000	1973	1980									1989	DEC 1989
NORMAL NO. DAYS WITH: SNOWFALL >= 1.0	30	0.2	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.5	

**PRECIPITATION (inches) 2009 WILMINGTON (KILM)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	4.16	1.52	6.03	1.33	4.65	2.46	5.95	3.21	5.97	1.62	1.87	5.81	44.58
1981	1.09	3.08	3.02	1.43	5.02	2.45	5.23	14.06	1.07	1.39	0.78	5.76	44.38
1982	5.50	6.67	1.84	4.03	2.04	7.59	8.59	3.67	7.08	2.56	1.32	6.57	57.46
1983	4.90	8.74	8.09	2.09	1.13	6.71	5.53	5.63	5.59	1.02	4.49	5.20	59.12
1984	2.58	4.82	4.43	3.23	6.45	0.89	9.01	4.79	18.94	0.49	1.16	1.32	58.11
1985	2.01	5.08	1.66	0.71	2.76	4.56	10.34	3.63	2.75	2.43	6.74	1.35	44.02
1986	2.12	2.52	4.13	0.48	7.09	5.58	11.28	11.44	0.70	3.35	4.44	6.28	59.41
1987	6.49	4.42	2.70	2.96	0.95	5.24	5.19	9.35	6.42	0.51	5.67	1.35	51.25
1988	5.41	2.00	4.05	3.56	7.54	2.93	14.49	9.61	2.80	1.81	3.14	0.59	57.93
1989	1.60	2.64	6.70	7.60	3.58	7.55	9.93	3.93	9.54	4.61	1.91	7.06	66.65
1990	2.34	2.31	5.11	2.21	8.04	2.17	6.59	11.42	1.40	7.10	2.09	2.65	53.43
1991	10.22	1.65	6.52	3.35	1.75	2.57	13.35	8.65	3.31	4.19	2.98	2.17	60.71
1992	5.75	3.45	5.65	3.12	7.55	7.00	3.18	13.56	2.23	3.09	7.14	4.48	66.20
1993	5.83	2.96	6.34	5.78	2.82	3.70	7.04	5.66	8.09	8.29	2.58	2.67	61.76
1994	7.03	3.26	8.27	0.80	2.67	2.75	4.76	6.03	7.09	8.53	3.27	6.91	61.37
1995	4.93	4.47	4.35	0.16	6.47	12.03	8.74	4.08	6.92	9.31	1.56	2.09	65.11
1996	3.09	1.12	4.70	2.50	3.00	8.02	13.42	5.19	13.35	6.06	1.22	2.75	64.42
1997	3.38	3.86	2.55	3.02	1.61	5.81	6.15	2.86	8.94	1.33	5.25	4.83	49.59
1998	7.29	11.22	2.06	2.80	7.58	4.31	3.79	13.48	5.38	1.36	0.97	3.96	64.20
1999	4.80	2.00	3.07	5.02	8.16	3.91	4.54	8.35	23.41	3.81	3.58	1.41	72.06
2000	4.66	1.31	2.61	4.64	3.70	6.23	7.83	8.38	7.77	0.38	4.67	1.64	53.82
2001	0.68	2.28	8.26	0.90	3.08	4.15	7.26	5.62	3.04	0.45	0.95	1.31	37.98
2002	1.82	1.97	5.62	0.53	2.42	4.21	7.78	12.09	4.95	2.34	3.06	2.53	49.32
2003	1.69	4.03	5.33	6.48	7.43	5.42	4.69	6.33	5.74	9.58	1.95	4.95	63.62
2004	2.18	5.28	1.85	1.35	3.81	2.66	7.14	10.03	9.93	1.90	2.92	1.68	50.73
2005	1.32	2.26	3.12	3.90	5.91	8.28	6.14	6.81	8.26	15.07	4.11	4.15	69.33
2006	1.88	3.35	1.28	3.06	2.30	7.83	3.67	18.83	5.67	5.66	6.01	4.26	63.80
2007	4.43	2.06	1.56	1.29	1.63	3.64	5.43	2.89	4.60	2.17	0.60	3.05	33.35
2008	3.24	3.93	3.21	2.25	4.07	4.08	12.43	7.19	9.69	3.04	4.65	3.02	60.80
2009	2.01	1.61	3.57	1.67	6.52	3.80	9.67	6.33	8.75	2.09	4.85	8.86	59.73
POR= 77 YRS	3.55	3.55	4.05	2.90	4.08	5.23	7.84	7.32	6.24	3.31	3.15	3.54	54.76

WBAN : 13748

**AVERAGE TEMPERATURE (°F) 2009 WILMINGTON (KILM)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	ANNUAL
1980	47.2	41.7	50.4	63.2	70.5	76.9	82.9	82.2	78.7	62.9	51.9	45.0	62.8
1981	37.5	46.6	49.9	63.9	66.9	79.8	80.7	76.9	71.4	60.9	52.3	44.4	60.9
1982	41.5	50.7	55.8	58.6	71.1	75.8	79.1	77.7	72.0	62.0	57.5	52.6	62.9
1983	42.6	45.1	53.7	57.4	67.3	75.0	82.8	81.5	74.8	66.1	55.1	46.9	62.4
1984	42.1	50.4	52.9	61.0	70.0	77.3	77.9	78.3	71.0	68.7	55.0	57.5	63.5
1985	43.2	50.4	59.1	66.3	71.8	78.7	81.4	78.9	75.0	71.1	66.6	47.0	65.8
1986	44.2	51.6	55.6	64.3	71.9	79.4	84.0	78.8	76.5	67.3	59.7	49.9	65.3
1987	45.0	45.5	52.4	59.7	70.6	78.6	81.9	81.4	76.6	60.3	57.6	50.0	63.3
1988	41.2	46.4	54.2	61.5	68.8	74.3	79.9	81.1	74.4	59.2	58.0	46.6	62.1
1989	51.7	50.7	55.5	61.3	68.7	79.6	80.5	78.8	75.3	65.8	57.1	38.6	63.6
1990	52.6	55.5	58.5	63.5	71.2	77.9	81.7	80.2	75.2	68.8	57.7	54.8	66.5
1991	48.3	51.4	57.5	66.5	74.9	77.8	82.9	80.2	75.0	64.9	54.0	51.0	65.4
1992	47.0	51.6	53.9	61.5	66.9	74.3	83.0	78.5	75.0	62.2	58.7	48.3	63.4
1993	50.5	45.8	52.7	59.8	71.2	78.1	84.1	79.8	77.7	66.5	57.6	46.1	64.2
1994	44.0	50.0	57.0	65.9	67.7	79.3	81.7	78.8	72.7	64.4	60.0	52.8	64.5
1995	47.0	46.4	55.6	65.1	71.2	75.5	81.1	79.8	73.4	67.5	51.4	43.9	63.2
1996	45.1	46.9	50.2	62.3	71.9	77.1	80.3	78.2	74.8	65.0	50.9	50.5	62.8
1997	45.8	51.0	59.1	59.8	66.9	73.2	79.7	77.7	73.8	63.9	53.1	47.3	62.6
1998	49.7	50.9	54.7	63.1	72.1	80.9	81.8	79.8	76.9	66.0	57.7	53.1	65.6
1999	51.6	50.9	51.8	65.5	70.5	77.1	83.4	82.6	74.3	65.4	60.2	49.8	65.3
2000	44.8	52.1	58.3	61.3	72.5	77.6	78.0	77.9	73.4	62.7	52.5	41.4	62.7
2001	45.6	51.4	53.0	63.9	70.1	79.0	78.3	79.6	71.4	62.7	60.6	53.9	64.1
2002	48.9	48.9	56.7	67.0	69.0	77.1	81.5	79.3	76.6	67.6	53.3	45.6	64.3
2003	41.2	47.0	58.0	61.6	70.8	77.3	80.4	80.3	72.9	63.7	59.8	45.0	63.2
2004	42.8	44.8	55.6	63.4	74.4	78.5	80.8	77.2	74.6	65.9	56.8	47.3	63.5
2005	47.3	48.2	52.5	61.0	66.8	77.0	82.3	80.8	77.9	66.5	57.9	46.0	63.7
2006	51.9	46.5	53.4	65.2	69.0	76.2	80.7	80.5	72.0	62.9	56.5	52.0	63.9
2007	49.4	45.0	57.3	61.9	68.6	77.1	79.2	81.9	75.6	70.6	55.0	53.5	64.6
2008	46.1	52.1	55.8	63.8	69.3	80.7	80.4	78.9	75.2	62.4	52.7	52.7	64.2
2009	45.2	47.1	53.7	63.2	71.8	78.7	79.6	80.6	73.5	64.5	57.8	47.7	63.6
POR= 77 YRS	46.5	47.4	54.7	62.4	70.4	76.7	80.3	79.5	74.2	65.0	55.8	48.4	63.5

**HEATING DEGREE DAYS (base 65°F) 2009 WILMINGTON (KILM)**

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0	0	0	128	388	613	846	510	465	101	64	0	3115
1981-82	0	0	13	149	374	630	726	396	290	204	17	0	2799
1982-83	0	0	3	145	241	386	688	552	345	231	46	2	2639
1983-84	0	0	12	66	299	551	703	417	371	147	37	1	2604
1984-85	0	0	16	18	306	243	682	420	228	80	11	0	2004
1985-86	0	0	4	17	60	559	637	371	307	92	24	0	2071
1986-87	0	0	0	79	199	469	615	542	395	181	25	0	2505
1987-88	0	0	0	152	230	461	730	537	330	139	38	7	2624
1988-89	0	0	0	202	225	563	406	415	312	187	44	0	2354
1989-90	0	0	4	74	259	810	378	282	233	114	7	0	2161
1990-91	0	0	6	77	223	327	513	382	265	63	0	0	1856
1991-92	0	0	0	78	336	447	548	383	343	167	45	0	2347
1992-93	0	0	4	126	238	509	449	530	378	169	5	0	2408
1993-94	0	0	4	57	244	580	641	415	255	62	47	0	2305
1994-95	0	0	0	73	172	375	552	513	290	88	10	0	2073
1995-96	0	0	6	58	427	648	612	521	452	148	39	0	2911
1996-97	0	0	0	61	427	442	588	398	210	178	40	20	2364
1997-98	0	0	2	118	358	542	478	390	339	112	5	0	2344
1998-99	0	0	0	59	225	384	416	389	408	79	26	0	1986
1999-00	0	0	8	77	184	465	619	369	232	141	7	0	2102
2000-01	0	0	5	111	383	728	596	379	372	134	14	0	2722
2001-02	0	0	15	136	158	354	501	448	279	86	47	0	2024
2002-03	0	0	0	58	356	595	732	499	227	134	11	0	2612
2003-04	0	0	6	88	189	610	692	577	295	116	15	0	2588
2004-05	0	0	0	69	272	548	543	464	380	154	40	0	2470
2005-06	0	0	0	108	226	581	398	511	376	98	27	0	2325
2006-07	0	0	3	131	252	404	481	552	266	179	25	0	2293
2007-08	0	0	0	31	302	361	585	378	289	94	14	0	2054
2008-09	0	0	0	145	373	384	607	495	363	104	23	0	2494
2009-	0	0	2	97	219	530							

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**COOLING DEGREE DAYS (base 65°F) 2009 WILMINGTON (KILM)**

YEAR	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
1980	0	1	0	71	198	364	560	540	419	70	2	0	2225
1981	0	0	3	74	131	449	491	375	213	32	2	0	1770
1982	0	3	11	18	211	331	445	400	218	58	24	9	1728
1983	0	0	2	10	122	307	560	517	313	107	10	0	1948
1984	0	0	4	35	201	378	405	418	204	138	12	18	1813
1985	11	17	57	126	229	420	513	437	309	211	112	10	2452
1986	0	4	22	79	247	436	599	435	353	158	47	8	2388
1987	0	0	11	32	205	419	529	516	354	15	16	3	2100
1988	0	4	2	43	164	293	466	505	289	26	20	0	1812
1989	1	20	25	80	167	443	489	432	321	104	29	0	2111
1990	4	20	42	74	206	394	525	480	317	201	8	13	2284
1991	0	7	36	118	311	392	565	478	306	82	11	20	2326
1992	0	2	5	67	108	286	563	427	314	47	57	0	1876
1993	6	0	2	20	206	399	600	467	392	109	29	0	2230
1994	0	4	13	94	136	436	525	434	239	62	28	3	1974
1995	3	2	7	99	210	321	505	467	264	141	22	0	2041
1996	0	4	2	73	260	368	483	416	304	68	11	1	1990
1997	0	11	35	29	110	276	464	401	271	94	7	0	1698
1998	11	2	26	61	236	486	528	466	366	98	13	21	2314
1999	7	0	4	101	205	369	577	555	298	97	45	2	2260
2000	2	1	30	35	247	381	409	410	265	50	14	0	1844
2001	0	5	6	106	178	430	419	458	214	73	32	15	1936
2002	9	6	26	151	179	373	519	450	353	146	10	0	2222
2003	0	2	15	39	197	375	483	483	251	53	42	0	1940
2004	10	0	14	76	310	411	495	386	292	104	33	7	2138
2005	4	0	0	43	104	367	542	495	393	164	21	0	2133
2006	0	0	24	108	160	345	495	489	221	71	5	7	1925
2007	5	0	30	92	129	369	446	532	322	212	9	11	2157
2008	4	10	10	64	153	479	489	438	316	71	9	9	2052
2009	2	0	20	55	241	421	459	491	263	89	12	0	2053

## SNOWFALL (inches) 2009 WILMINGTON (KILM)

YEAR	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTAL
1980-81	0.0	0.0	0.0	0.0	0.0	0.0	1.0	0.0	0.0	0.0	0.0	0.0	1.0
1981-82	0.0	0.0	0.0	0.0	0.0	0.0	T	0.1	0.0	0.0	0.0	0.0	0.1
1982-83	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.2	0.0	0.0	0.0	4.2
1983-84	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1984-85	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	0.0	T
1985-86	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	0.0	0.0	T
1986-87	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
1987-88	0.0	0.0	0.0	0.0	0.0	0.0	5.4	0.0	0.0	0.0	0.0	0.0	5.4
1988-89	0.0	0.0	0.0	0.0	0.0	1.7	0.0	0.8	T	T	0.0	0.0	2.5
1989-90	0.0	0.0	0.0	0.0	0.0	15.3	0.0	0.0	0.0	0.0	0.0	T	15.3
1990-91	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	T
1991-92	0.0	0.0	0.0	0.0	0.0	0.0	1.4	T	T	0.0	0.0	0.0	1.4
1992-93	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	0.0	0.0	T	T
1993-94	0.0	0.0	0.0	0.0	0.0	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.7
1994-95	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	T	T
1995-96	0.0	0.0	0.0	0.0	0.0	0.0	T	0.6	0.0	T	0.0	0.0	0.6
1996-97	T	0.0	0.0	0.0	0.0	0.0	0.0	1.2	0.0	0.0	0.0	T	1.2
1997-98	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	T	T	T
1998-99	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	0.0	0.0	T
1999-00	0.0	0.0	0.0	0.0	0.0	T	6.1	0.0	0.0	0.0	0.0	0.0	6.1
2000-01	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.0	T	T	0.2
2001-02	0.0	0.0	0.0	0.0	0.0	0.0	1.8	0.0	0.0	0.0	0.0	0.0	1.8
2002-03	0.0	0.0	0.0	0.0	0.0	0.0	3.0	0.0	0.0	0.0	0.0	0.0	3.0
2003-04	0.0	0.0	0.0	0.0	0.0	T	0.0	T	0.0	0.0	0.0	0.0	T
2004-05	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	0.0	T
2005-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2006-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2007-08	0.0	0.0	0.0	0.0	0.0	0.0	T	0.0	0.0	0.0	0.0	0.0	T
2008-09	0.0	0.0	0.0	0.0	0.0	0.0	0.9	0.1	T	0.0	0.0	0.0	1.0
2009-	0.0	0.0	0.0	0.0	0.0	0.0							
POR= 77 YRS	T	0.0	0.0	0.0	0.0	0.4	0.4	0.5	0.3	T	T	T	1.6

WBAN : 13748

### REFERENCE NOTES :

<p>PAGE 1: THE TEMPERATURE GRAPH SHOWS NORMAL MAXIMUM AND NORMAL MINIMUM DAILY TEMPERATURES (SOLID CURVES) AND THE ACTUAL DAILY HIGH AND LOW TEMPERATURES (VERTICAL BARS).</p> <p>PAGE 2 AND 3: H/C INDICATES HEATING AND COOLING DEGREE DAYS. RH INDICATES RELATIVE HUMIDITY W/O INDICATES WEATHER AND OBSTRUCTIONS S INDICATES SUNSHINE. PR INDICATES PRESSURE. CLOUDINESS ON PAGE 3 IS THE SUM OF THE CEILOMETER AND SATELLITE DATA NOT TO EXCEED EIGHT EIGHTHS(OKTAS).</p> <p>GENERAL: T INDICATES TRACE PRECIPITATION, AN AMOUNT GREATER THAN ZERO BUT LESS THAN THE LOWEST REPORTABLE VALUE. + INDICATES THE VALUE ALSO OCCURS ON EARLIER DATES. BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA. NORMALS ARE 30-YEAR AVERAGES (1971 - 2000). ASOS INDICATES AUTOMATED SURFACE OBSERVING SYSTEM. PM INDICATES THE LAST DAY OF THE PREVIOUS MONTH. POR (PERIOD OF RECORD) BEGINS WITH THE JANUARY DATA MONTH AND IS THE NUMBER OF YEARS USED TO COMPUTE THE MEAN. INDIVIDUAL MONTHS WITHIN THE POR MAY BE MISSING. WHEN THE POR FOR A NORMAL IS LESS THAN 30 YEARS, THE NORMAL IS PROVISIONAL AND IS BASED ON THE NUMBER OF YEARS INDICATED. 0.* OR * INDICATES THE VALUE OR MEAN-DAYS-WITH IS BETWEEN 0.00 AND 0.05. CLOUDINESS FOR ASOS STATIONS DIFFERS FROM THE NON-ASOS OBSERVATION TAKEN BY A HUMAN OBSERVER. ASOS STATION CLOUDINESS IS BASED ON TIME-AVERAGED CEILOMETER DATA FOR CLOUDS AT OR BELOW 12,000 FEET AND ON SATELLITE DATA FOR CLOUDS ABOVE 12,000 FEET. THE NUMBER OF DAYS WITH CLEAR, PARTLY CLOUDY, AND CLOUDY CONDITIONS FOR ASOS STATIONS IS THE SUM OF THE CEILOMETER AND SATELLITE DATA FOR THE SUNRISE TO SUNSET PERIOD. CLEAR INDICATES 0 - 2 OKTAS, PARTLY CLOUDY INDICATES 3 - 6 OKTAS, AND CLOUDY INDICATES 7 OR 8 OKTAS. WHEN AT LEAST ONE OF THE ELEMENTS (CEILOMETER OR SATELLITE) IS MISSING, THE DAILY CLOUDINESS IS NOT COMPUTED.</p>	<p>GENERAL CONTINUED: WIND DIRECTION IS RECORDED IN TENS OF DEGREES (2 DIGITS) CLOCKWISE FROM TRUE NORTH. "00" INDICATES CALM. "36" INDICATES TRUE NORTH. RESULTANT WIND IS THE VECTOR AVERAGE OF THE SPEED AND DIRECTION. AVERAGE TEMPERATURE IS THE SUM OF THE MEAN DAILY MAXIMUM AND MINIMUM TEMPERATURE DIVIDED BY 2. SNOWFALL DATA COMPRISE ALL FORMS OF FROZEN PRECIPITATION, INCLUDING HAIL. A HEATING (COOLING) DEGREE DAY IS THE DIFFERENCE BETWEEN THE AVERAGE DAILY TEMPERATURE AND 65 F. DRY BULB IS THE TEMPERATURE OF THE AMBIENT AIR. DEW POINT IS THE TEMPERATURE TO WHICH THE AIR MUST BE COOLED TO ACHIEVE 100 PERCENT RELATIVE HUMIDITY. WET BULB IS THE TEMPERATURE THE AIR WOULD HAVE IF THE MOISTURE CONTENT WAS INCREASED TO 100 PERCENT RELATIVE HUMIDITY. ON JULY 1, 1996, THE NATIONAL WEATHER SERVICE BEGAN USING THE "METAR" OBSERVATION CODE THAT WAS ALREADY EMPLOYED BY MOST OTHER NATIONS OF THE WORLD. THE MOST NOTICEABLE DIFFERENCE IN THIS ANNUAL PUBLICATION WILL BE THE CHANGE IN UNITS FROM TENTHS TO EIGHTS(OKTAS) FOR REPORTING THE AMOUNT OF SKY COVER. STATION HISTORY STOPPED WITH THE 2009 ANNUAL. IF YOU NEED HISTORY GO TO "MULTI-NETWORK MEDADATA SYSTEM", URL IS: <a href="https://mi3.ncdc.noaa.gov/mi3qry/login.cfm">https://mi3.ncdc.noaa.gov/mi3qry/login.cfm</a></p> <p><b>NOTE:</b> The "Period of Record:(POR) for all "averages" is based on the "Summary of the Day First Order Station" and "Cooperative Summary of the Day" archives.</p>
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# 2009

## WILMINGTON

### NORTH CAROLINA (KILM)

Wilmington is located in the tidewater section of southeastern North Carolina, near the Atlantic Ocean. The city proper is built adjacent to the east bank of the Cape Fear River. Because of the curvature of the coastline in this area, the ocean lies about 5 miles east and about 20 miles south. The surrounding terrain is typical of coastal Carolina. It is low-lying with an average elevation of less than 40 feet, and is characterized by level to gently rolling land with rivers, creeks, and lakes that frequently have considerable swamp or marshland adjoining them. Large wooded areas alternate with cultivated fields.

The maritime location makes the climate of Wilmington unusually mild for its latitude. All wind directions from the east-northeast through southwest have some moderating effects on temperatures throughout the year, because the ocean is relatively warm in winter and cool in summer. The daily range in temperatures is moderate compared to a continental type of climate. As a rule, summers are quite warm and humid, but excessive heat is rare. Sea breezes, arriving early in the afternoon, tend to alleviate the heat further inland. Long-term averages show afternoon temperatures reach 90 degrees or higher on one-third of the days in midsummer, but several years may pass without 100 degree weather. During the colder part of the year, numerous outbreaks of polar air masses reach the Atlantic Coast, causing sharp drops in temperatures. However, these cold outbreaks are significantly moderated by the long trajectories from the source regions, the effects of passing over the Appalachian Range, and the warming effects of the ocean air. As a result, most winters are short and quite mild. Even in the most severe cold spells, the temperature usually remains above zero. Normally, the temperature fails to rise above the freezing point during a 24-hour period only once each winter.

Rainfall in this area is usually ample and well-distributed throughout the year, the greatest amount occurring in the summer. Summer rainfall comes principally from thunderstorms, and is therefore usually of short duration, but often heavy and unevenly distributed. Thunderstorms occur about one out of three days from June through August. Winter rain is more likely to be of the slow, steady type, lasting one or two days. Generally, the winter rain is evenly distributed and associated with slow-moving, low-pressure systems. Seldom is there a winter without a few flakes of snow, but several years may pass without a measurable amount, and appreciable accumulation on the ground is rare. Hail occurs less than once a year. Sunshine is abundant, with the area receiving about two-thirds of the sunshine hours possible at its latitude.

Because of these many factors, the growing season is long, averaging 244 days, but records show the range is from 180 days to as long as 302 days. This area is exceptionally good for floriculture. Agricultural pursuits, principally field-grown flowers, nursery plantings, and vegetables, are an important part of the economy. Some types of plants continue to grow throughout the year.

In common with most Atlantic Coastal localities, the area is subject to the effects of coastal storms and occasional hurricanes which produce high winds, above normal tides, and heavy rains.

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