

# Great Tables - Solar Zenith

```

from great_tables import GT, html
from great_tables.data import sza
import polars as pl
import polars.selectors as cs

sza_pivot = (
    pl.from_pandas(sza)
    .filter((pl.col("latitude") == "20") & (pl.col("tst") <= "1200"))
    .select(pl.col("*").exclude("latitude"))
    .drop_nulls()
    .pivot(values="sza", index="month", columns="tst", sort_columns=True)
)

(
    GT(sza_pivot, rowname_col="month")
    .data_color(
        domain=[90, 0],
        palette=["rebeccapurple", "white", "orange"],
        na_color="white",
    )
    .tab_header(
        title="Solar Zenith Angles from 05:30 to 12:00",
        subtitle=html("Average monthly values at latitude of 20&deg;N."),
    )
    .sub_missing(missing_text="")
)

```

```

/var/folders/_5/l_f9_2dj4n5dpm0ztth7n97c0000gp/T/
ipykernel_41738/3241749517.py:11: DeprecationWarning: The argument `columns` for
`DataFrame.pivot` is deprecated. It has been renamed to `on`.
    .pivot(values="sza", index="month", columns="tst", sort_columns=True)

```

## Solar Zenith Angles from 05:30 to 12:00

Average monthly values at latitude of 20°N.

	0530	0600	0630	0700	0730	0800	0830	0900	0930	1000	1030	1100	1130	1200
jan				84.9	78.7	72.7	66.1	61.5	56.5	52.1	48.3	45.5	43.6	43.0
feb			88.9	82.5	75.8	69.6	63.3	57.7	52.2	47.4	43.1	40.0	37.8	37.2
mar			85.7	78.8	72.0	65.2	58.6	52.3	46.2	40.5	35.5	31.4	28.6	27.7
apr		88.5	81.5	74.4	67.4	60.3	53.4	46.5	39.7	33.2	26.9	21.3	17.2	15.5
may		85.0	78.2	71.2	64.3	57.2	50.2	43.2	36.1	29.1	26.1	15.2	8.8	5.0
jun	89.2	82.7	76.0	69.3	62.5	55.7	48.8	41.9	35.0	28.1	21.1	14.2	7.3	2.0

## Solar Zenith Angles from 05:30 to 12:00

Average monthly values at latitude of 20°N.

jul	88.8	82.3	75.7	69.1	62.3	55.5	48.7	41.8	35.0	28.1	21.2	14.3	7.7	3.1
aug		83.8	77.1	70.2	63.3	56.4	49.4	42.4	35.4	28.3	21.3	14.3	7.3	1.9
sep		87.2	80.2	73.2	66.1	59.1	52.1	45.1	38.1	31.3	24.7	18.6	13.7	11.6
oct			84.1	77.1	70.2	63.3	56.5	49.9	43.5	37.5	32.0	27.4	24.3	23.1
nov			87.8	81.3	74.5	68.3	61.8	56.0	50.2	45.3	40.7	37.4	35.1	34.4
dec				84.3	78.0	71.8	66.1	60.5	55.6	50.9	47.2	44.2	42.4	41.8