In [1]:
```
import matplotlib.pyplot as plt
import pandas as pd
import numpy as np
import seaborn as sns
```

In [2]:
```
df = pd.read_csv('CaloriesIntensityUpload2.csv', index_col=False)

df.columns = ['id', 'Time', 'Intensity', 'Calories', 'DateHour', 'Date','TimeofDay']
```

In [3]:
```
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 22099 entries, 0 to 22098
Data columns (total 7 columns):
 #   Column     Non-Null Count  Dtype 
---  ------     --------------  ----- 
 0   id         22099 non-null  int64 
 1   Time       22099 non-null  object
 2   Intensity  22099 non-null  int64 
 3   Calories   22099 non-null  int64 
 4   DateHour   22099 non-null  object
 5   Date       22099 non-null  object
 6   TimeofDay  22099 non-null  object
dtypes: int64(3), object(4)
memory usage: 1.2+ MB
```

In [4]:
```
df.head()
```

Out[4]:

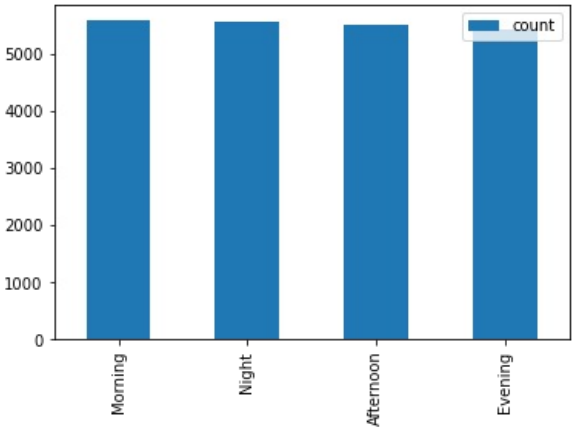
	id	Time	Intensity	Calories	DateHour	Date	TimeofDay
0	1503960366	0:00:00	10	66	2016-04-24T00:00:00Z	4/24/2016	Night
1	1503960366	0:00:00	1	51	2016-04-30T00:00:00Z	4/30/2016	Night
2	1624580081	0:00:00	1	51	2016-04-14T00:00:00Z	4/14/2016	Night
3	1624580081	0:00:00	1	51	2016-04-21T00:00:00Z	4/21/2016	Night
4	1624580081	0:00:00	1	51	2016-04-22T00:00:00Z	4/22/2016	Night

In [5]:
```
df=df.dropna()
df.info()
```

```
<class 'pandas.core.frame.DataFrame'>
RangeIndex: 22099 entries, 0 to 22098
Data columns (total 7 columns):
 #   Column     Non-Null Count  Dtype 
---  ------     --------------  ----- 
 0   id         22099 non-null  int64 
 1   Time       22099 non-null  object
 2   Intensity  22099 non-null  int64 
 3   Calories   22099 non-null  int64 
 4   DateHour   22099 non-null  object
 5   Date       22099 non-null  object
 6   TimeofDay  22099 non-null  object
dtypes: int64(3), object(4)
memory usage: 1.2+ MB
```

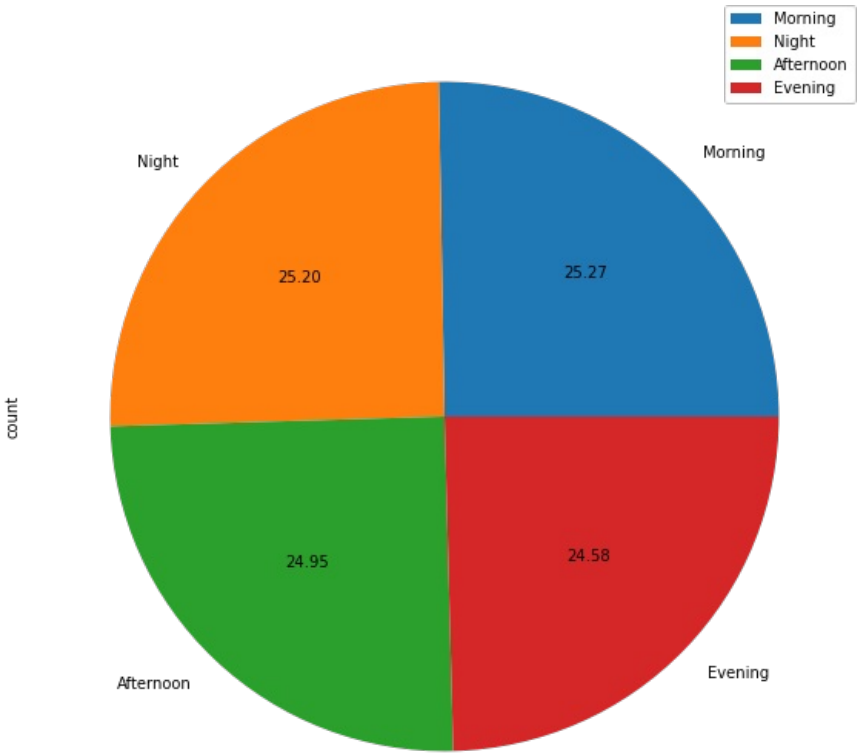
In [8]:
```
TimeofDay = pd.value_counts(df.TimeofDay)
TimeofDay = pd.DataFrame(TimeofDay)
TimeofDay.columns = ['count']
TimeofDay.plot.bar()
```

Out[8]:
```
<AxesSubplot:>
```



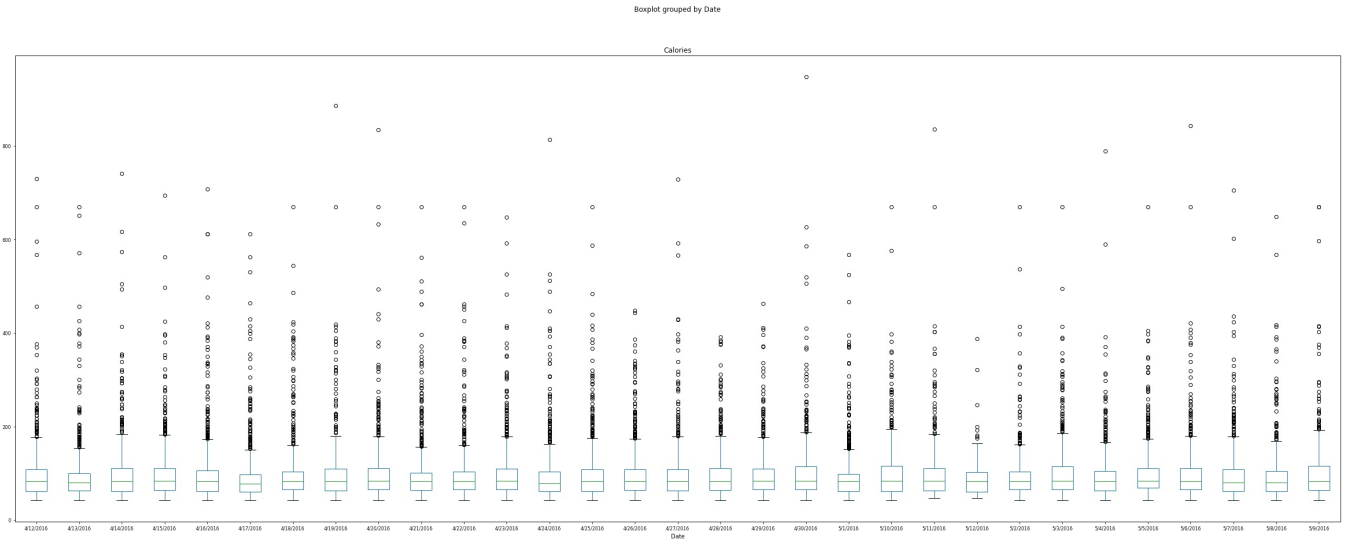
In [9]:
```
TimeofDay.plot.pie(subplots=True,autopct='%.2f',figsize=(10,10))
```

Out[9]:
```
array([<AxesSubplot:ylabel='count'>], dtype=object)
```



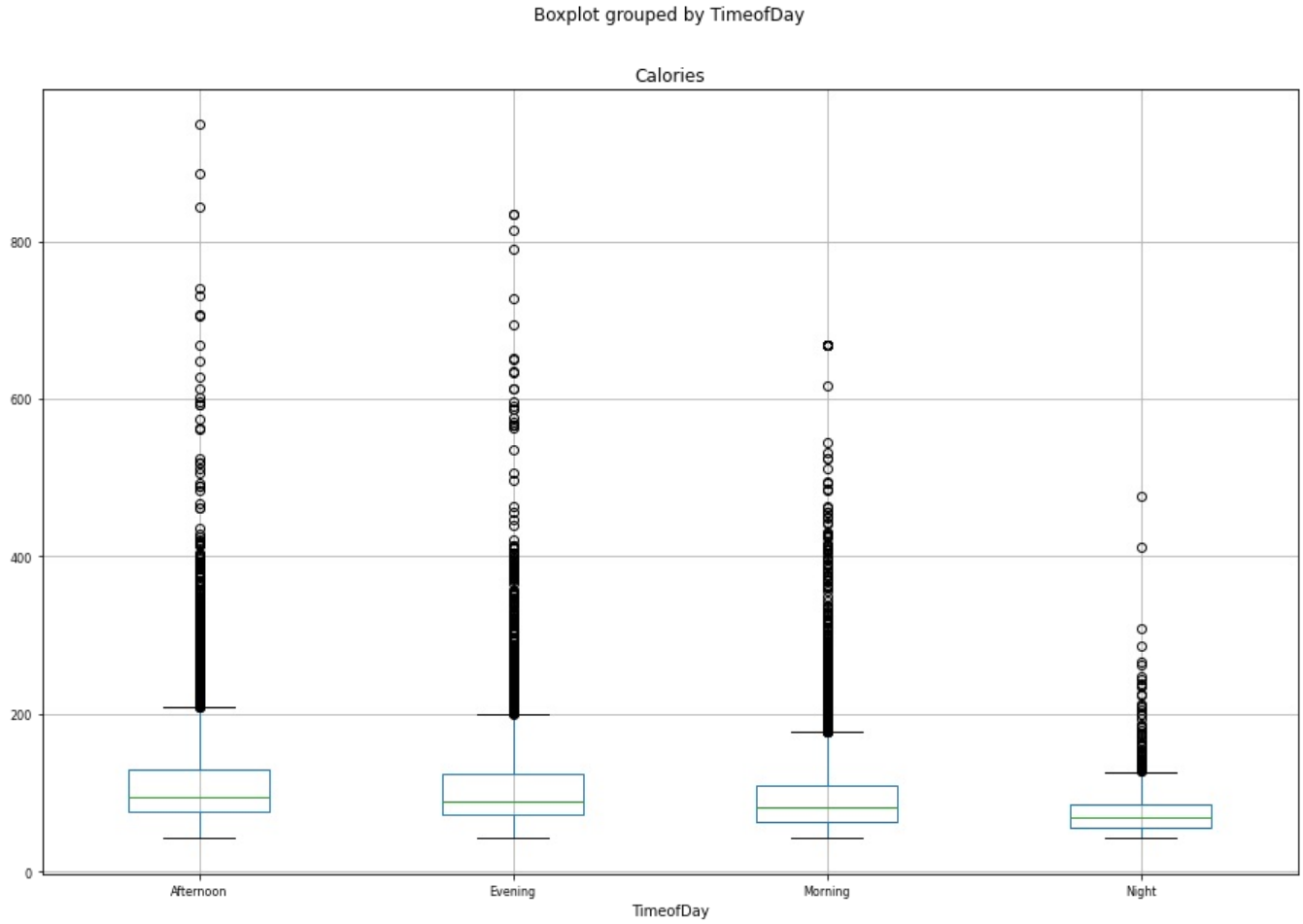
In [16]:
```
# Group by native country or region
df.boxplot(column='Calories',by='Date',fontsize=8,grid=False,figsize=(40,15))
```

Out[16]:
```
<AxesSubplot:title={'center':'Calories'}, xlabel='Date'>
```



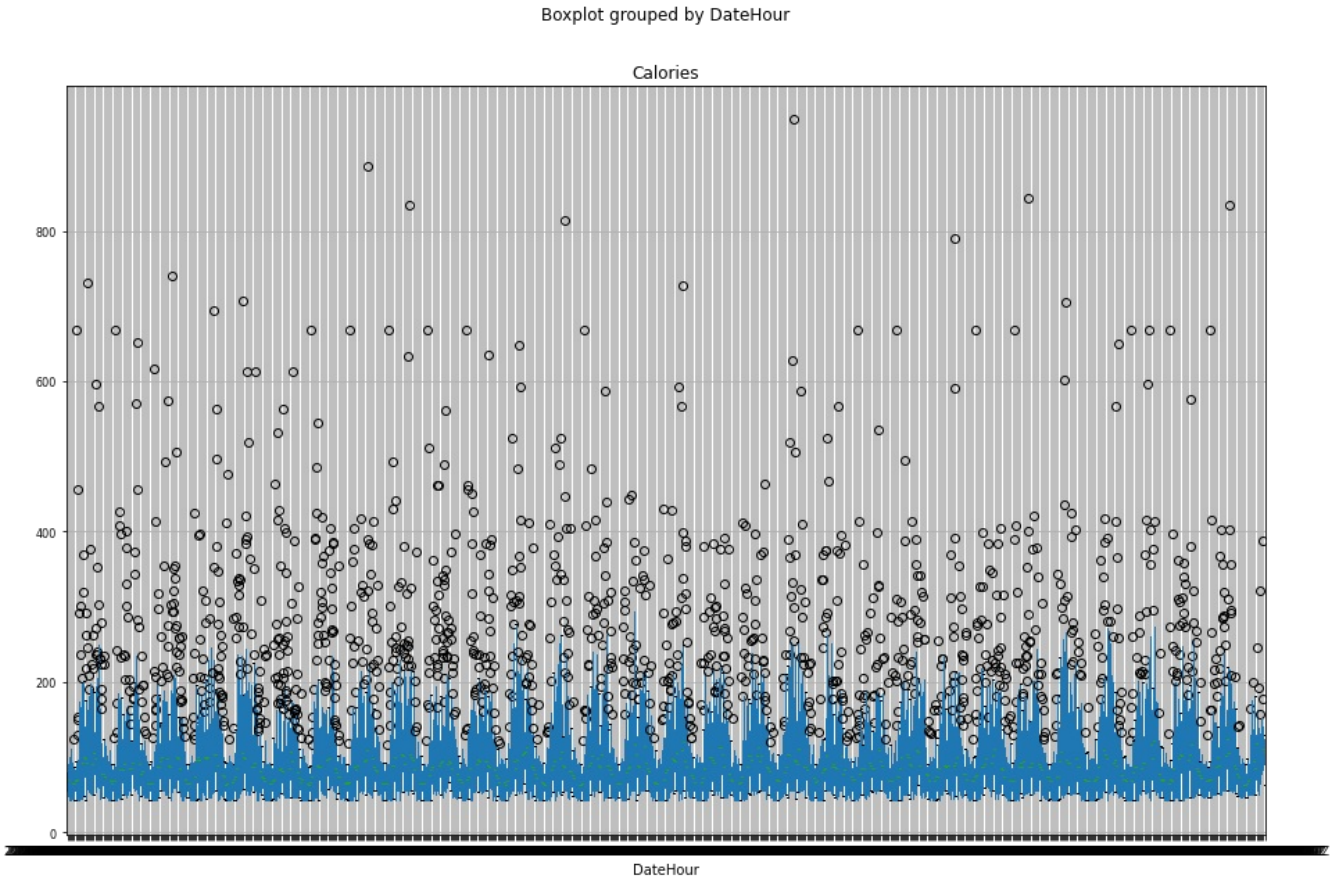
In [17]:
```
df.boxplot(column='Calories',by='TimeofDay',fontsize=8,grid=True,figsize=(15,10))
```

Out[17]:
```
<AxesSubplot:title={'center':'Calories'}, xlabel='TimeofDay'>
```



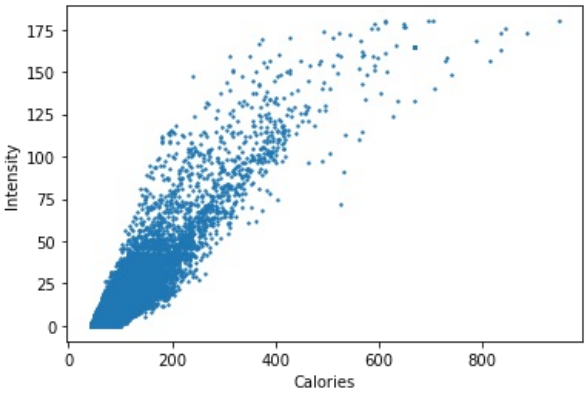
In [19]:
```
df.boxplot(column='Calories',by='DateHour',fontsize=8,grid=True,figsize=(15,10))
```

Out[19]:
```
<AxesSubplot:title={'center':'Calories'}, xlabel='DateHour'>
```



In [23]:
```
df.plot.scatter(x='Calories',y='Intensity',s=2)
```

Out[23]:
```
<AxesSubplot:xlabel='Calories', ylabel='Intensity'>
```



In [ ]:

In [ ]: