From the above table it is clear that if EER lies in between 3.10 to 3.29, the AC will be given 4 STARs. But what does this information mean to a consumer?

The better the EER value, the lower will be the power consumption AC and hence lower will be impact on you pocket. So if you see two 4 STARs ACs, one having EER value of 3.15 and another having 3.25, then you should go for second AC as its EER value is better.

Indian Seasonal Energy Efficiency Ratio (ISEER):

ISEER stands for Indian Seasonal Energy Efficiency Ratio. It is defined as the ratio of total amount of heat energy removed from the indoor air in a year to the total amount of power consumed annually.

ISEER = Cooling Capacity / Annually Power Consumed

The concept of ISEER was launched in India in 24th August 2016. This concept is introduced as the ambient temperature throughout the year varies and hence the cooling capacity of AC also varies to maintain a fixed indoor air temperature. In inverter AC, the tonnage of AC varies with the heat load. This greatly helps in improving the energy efficiency. As the name suggest, it is seasonal energy efficiency ratio. The better the value of ISEER, the better will be the efficiency of AC.

Based on the concept of ISEER, a new methodology to rate the AC has been adopted. In this method, the ISEER value is calculated for the entire year assuming the temperature profile for the year and 1600 operating hours of AC in a year. Based on the value of ISEER, the STAR rating is given to ACs.

Valid from 01/01/2018 to 31/12/2019

Star Rating	Minimum ISEER	Maximum ISEER
1 Star	3.10	3.29
2 Star	3.30	3.49
3 Star	3.50	3.99
4 Star	4.00	4.49
5 Star	4.50	

Power Consumption of AC:

If you see the name plate of AC, you will notice that value of ISEER is mentioned. Electricity consumption per year is also mentioned. But it must be noted that, the electricity consumption mentioned on the name plate has been calculated based on certain parameters. The accepted norm of an EER is, the 27 degree temperature inside the room, the 35 degree temperature outside the room, whereas the humidity is 50%

The actual power consumption by AC depends on various factors: Room Size, Heat Load in the room, ambient temperature etc. Thus the actual yearly power consumption may vary from what mentioned. But the power consumption mentioned at the name plate may serve as a reference for comparison of various ACs.

Obviously, one which consumes less power. As inverter AC is variable tonnage AC. It changes its tonnage as per the ambient and room temperature. Therefore, its energy efficiency is quite good and hence consumes less power. While non-inverter AC always runs at full tonnage and hence consumes more power for the same room cooling. Therefore, Inverter AC is always recommended.

Rough Cost of 3 Star AC = Rs. 34,000

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Saving on Fixed Cost = Rs. 13000 (If you buy 3 STAR Inverter AC)
Annual Power Consumption of 3 STAR Toshiba Inverter Split AC (1600 hours in a year)
= 1045 Units or kWh
Annual Electricity Bill per Year (assuming Rs. 5 per unit):
Assuming that AC is operated only in summer i.e. 4 months and 15 hours a day = 120×15 = 1800 hours.
Power Consumption of 5 STAR Toshiba Inverter Split AC for 1800 hours
= (767×1800) / 1600
= 863 Units or kWh
Power Consuption of 3 STAR Toshiba Inverter Split AC for 1800 hours
= (1045×1800) / 1600
= 1176 Units or kWh
Electricity bill for 3 STAR Toshiba Inverter Split AC for the entire summer of a year
= Rs. 1176×5
= Rs. 5880
The calculation has been done assuming that AC will be operated for 15 hours for 4 months. In many areas, the peak summer requiring AC only lasts for around 3 months. The calculation shown are indicative. The actual power consumption may vary. The purpose of the article was to convey the information.

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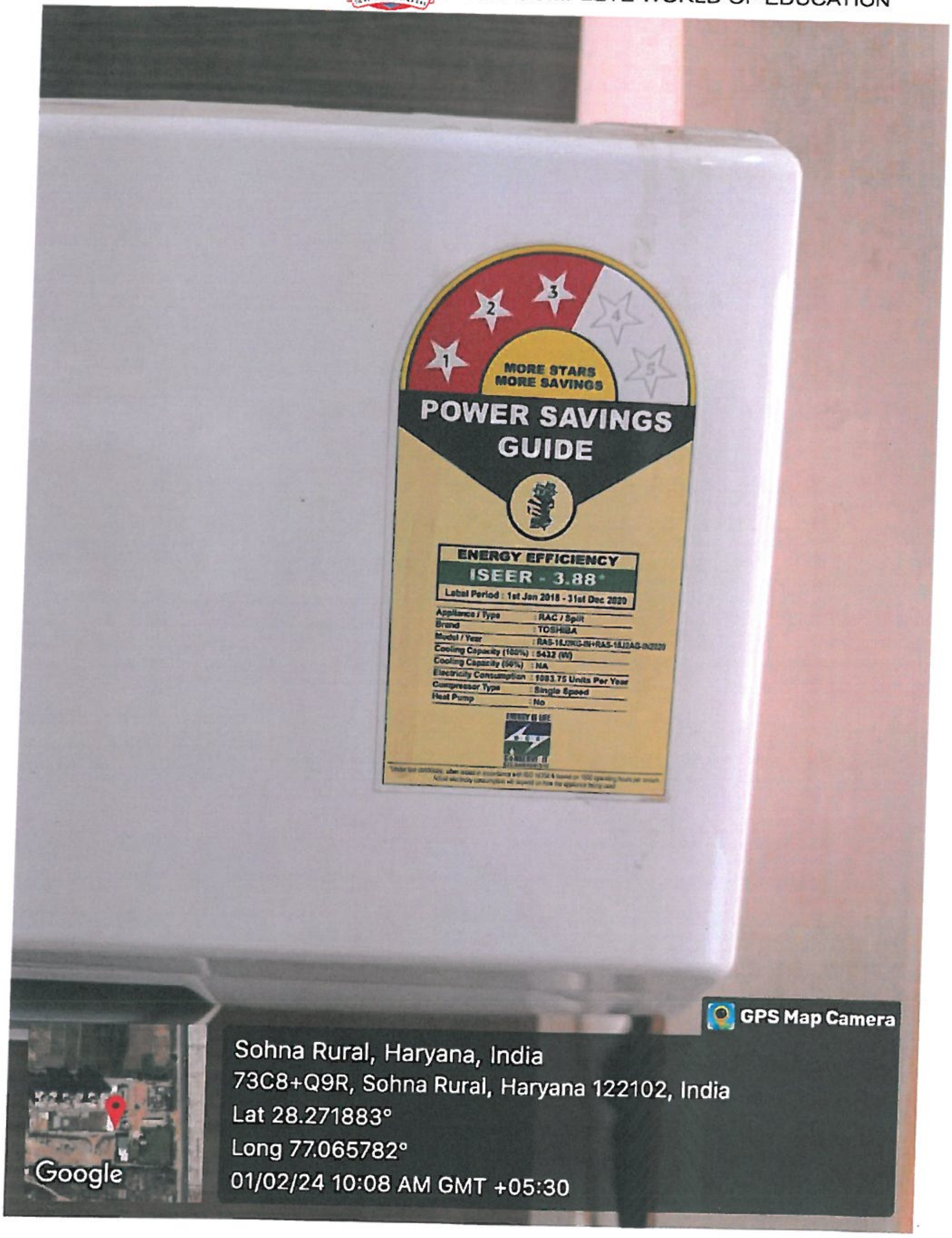

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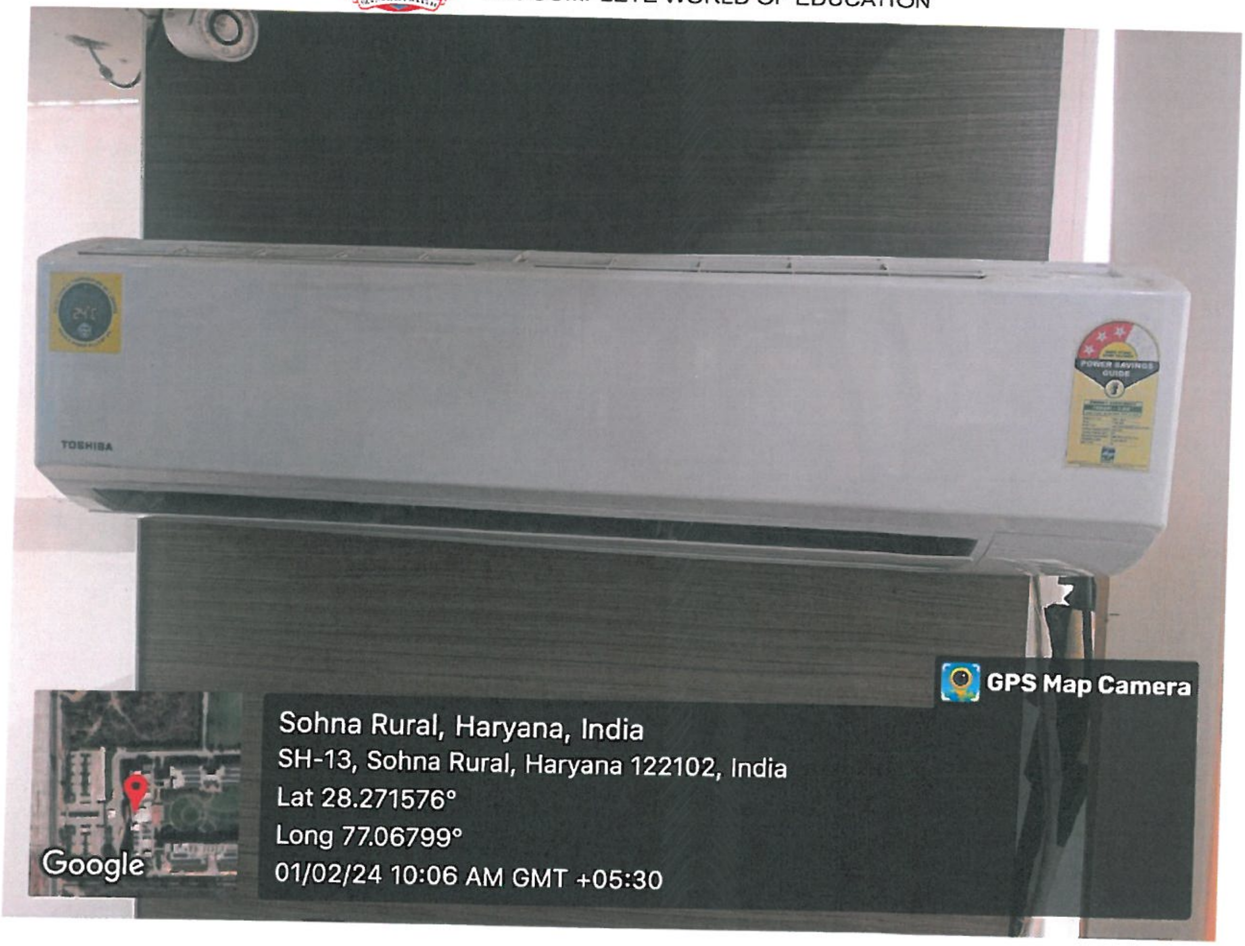

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7.1.2(B) LED lights

Replacement of energy-consuming lights with energy-saving LED bulbs in the University lowers CO2 emission; energy consumption, decreases maintenance costs and less wear on heating and cooling systems. LED lighting is an excellent & easy way to go green & save the environment.

Annual lighting power requirement met through LED bulbs (in KWH) required **"17384"**.

Total LED's Intalled in Campus as on 2-6-2023-**2111**

DETAILS OF LEDs FITMENT

A Block		
Location	**Capacity In Watt**	**Total**
Canteen	20 Watt	26
Library	15 Watt	36
Ground Floor (Admission area)	20 Watt	25
Wash room	18 Watt	26
Moot court	15 Watt	52
Class Rooms	20 Watt	186
Corridor 1st Floor	20 Watt	24
B Block		
Class Rooms	20 Watt	111
C Block		
Basement	24 Watt	92
Basement	14 Watt	24
Basement	36 Watt	36
Class Rooms/Corrridor	20 Watt	509
Wash room	24 Watt	44
Hostel		
Boys Gym	40 Watt	19
Ground Floor corridor	24 Watt	31
1st Floor corridor	24 Watt	29
3rd Floor Washrooms & Toilets	08 Watt	112
3rd Floor Study Light	9 Watt	54
3r Floor Washbasin	5 Watt	54
4th Floor Washrooms & Toilets	08 Watt	112
4th Floor Study Light	9 Watt	54
4th Floor Washbasin	5 Watt	54
Girls Mess	20 Watt	35
Boys Mess	20 watt	26

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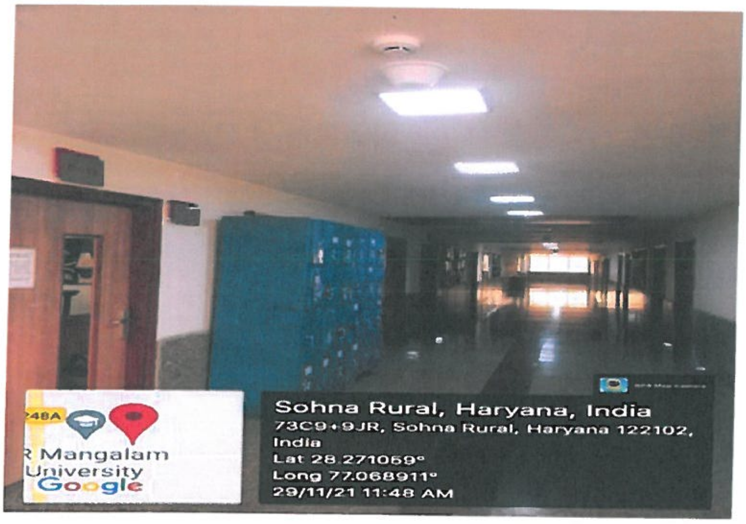
3rd Floor inside Room (surface Light)	20 Watt	28
3rd Floor Inside Room (Tube Light)	20 Watt	54
3rd Floor Corridor	20 Watt	60
4th Floor inside Room (surface Light)	20 Watt	28
4th Floor Inside Room (Tube Light)	20 Watt	54
4th Floor Corridor	20 Watt	60
Outer Area		
A Block Terrace	400 Watt	8
B Block Terrace	400 Watt	1
C Block Terrace	400 Watt	1
Hostel Terrace	200 Watt	8
Sports Club	250 Watt	36
DG Room Terrace	200 Watt	2
		2111



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