

We note an upward trend in the ΔT curve (difference between water production temperatures (ST-2) and water input temperature (ST-1)). The correlation suggests that as the light intensity increases, ΔT also increases. where: ☞ The ΔT curve reaches its lowest point at $-3.7\text{ }^{\circ}\text{C}$ under a 30% light intensity, indicating a negative value. This is due to the cooling effect due to the low temperature of the environment on the performance of the thermosiphon. ☞ Conversely, the peak value of $10.6\text{ }^{\circ}\text{C}$ occurs at a light intensity of 90%, signifying a thermal flow from the hot zone to the cold zone. This observation aligns with the expected and stable performance of the thermosiphon.