











Figure 13 shows the preliminary result of the non-uniform temperature distribution around the tube when heating the coil 2kW and at flow rate of 20 l/min. At this conditions, the temperature reaches 38°C at the top of the tube and 43°C at its bottom.

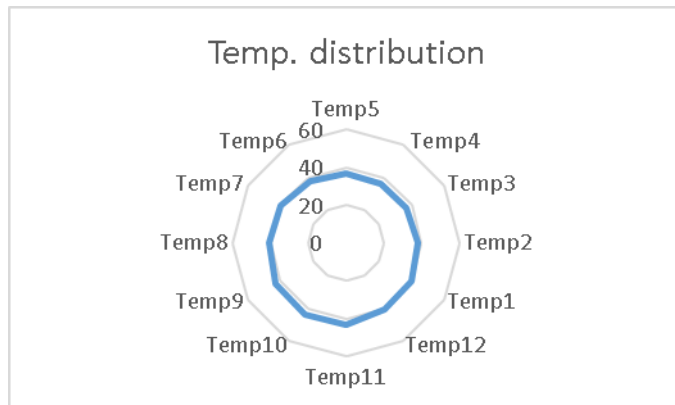


Fig. 14 Temperature around the tube

## VI. CONCLUSION

In this paper, a new implemented measuring method to measure the instantaneous temperature variation of the wall temperature of a horizontal tube used for the parabolic trough collector. The system is calibrated with an error of less than 1 percent. A sample of the non-uniform temperature distribution is obtained.

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