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(57) Abstract :

A cylindrical shaped device 100 for controlling air quality of airflow received from an air conditioning unit is disclosed. The device 100 installed in ducts of the centralized air conditioning unit to filter and sterilize the airflow. A first chamber 102 is configured with the device 100 to filter and regulate the air received through the duct from the air conditioning unit, and a second chamber 112 is configured with the device 100 to sterilize the filtered airflow received from the first chamber. The first chamber 102 includes one or more filtering elements 104 and one or more infrared LED elements 106 for filtration and regulation of the received airflow, and the second chamber 110 includes a plurality of ultraviolet elements 112 disposed at lateral surface of the second chamber 110. The first chamber 102 and the second chamber 110 are coupled with a set of funnels 108.

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