CLAIMS

1. A gas delivery apparatus, comprising:

a light transmissive member having a plurality of holes formed therein, wherein the plurality of holes is arranged in a linear array;

a plurality of tubes coupled to and extending vertically and perpendicular to a diameter of the light transmissive member and extending from the plurality of holes; and

a flange plate coupled to at least one of the plurality of tubes.

2. The apparatus of claim 1, wherein each tube of the plurality of tubes comprises quartz.

3. The apparatus of claim 2, wherein each tube of the plurality of tubes comprises a thermal break member is disposed on the tube between the light transmissive member and the flange plate.

4. The apparatus of claim 3, wherein each thermal break member comprises a radiation blocking member.

5. The apparatus of claim 1, wherein a distance between a diameter of the light transmissive member and a line connecting a center of each of the holes in the linear array of holes is between about 5 mm and about 50 mm.

6. The apparatus of claim 1, wherein the flange plate comprises quartz.

7. The apparatus of claim 1, wherein the flange plate is welded to the plurality of tubes.

8. The apparatus of claim 1, further comprising a metallic clamp member surrounding at least a portion of the flange plate.

9. The apparatus of claim 8, wherein a compliant member is disposed between the flange plate and the metallic clamp member.

10. An apparatus for processing a substrate, comprising:

a processing chamber body;

a light transmissive member coupled to the chamber body;

a plurality of holes formed through the light transmissive member, wherein the plurality of holes is arranged in a linear array and parallel to, and offset from, a diameter of the light transmissive member;

a plurality of tubes coupled to the light transmissive member at a first end and extending from the plurality of holes;

a flange plate coupled to a second end the plurality of tubes; and

a reflector plate coupled to the chamber body, the reflector plate disposed between the light transmissive member and the flange plate.

11. The apparatus of claim 10, wherein the plurality of tubes extend through the reflector plate.

12. The apparatus of claim 10, wherein the reflector plate comprises a first member and a second member mated to the first member at a region where the plurality of tubes extend through the reflector plate.

13. The apparatus of claim 10, wherein a temperature sensor is coupled to a top surface of the reflector plate.

14. The apparatus of claim 10, wherein the plurality of holes arranged in a linear array include a first hole and a plurality of second holes, wherein the first hole is at a central area of the light transmissive member and each of the plurality of second holes is a different distance from the first hole.

15. The apparatus of claim 10, wherein each tube comprises a thermal break member.

16. The apparatus of claim 15, wherein each tube comprises a first quartz portion that extends from the light transmissive member to the thermal break member and a second portion that extends from the thermal break member to the flange plate.

17. An apparatus for processing a substrate, comprising:

a processing chamber body;

a first dome coupled to the chamber body;

a second dome coupled to the chamber body opposite the first dome, the chamber body, first dome, and the second dome defining a processing volume;

a substrate support disposed within the processing volume;

a lamp array coupled to the chamber body outside the processing volume;

a plurality of holes formed through the second dome;

a tube coupled to each of the plurality of holes and extending from each hole away from the processing volume;

a flange plate coupled to each tube; and

a reflector plate coupled to the chamber body, the reflector plate disposed between the second dome and the flange plate.

18. The apparatus of claim 17, wherein a thermal break member is coupled to each tube between the reflector plate and the flange plate.

19. The apparatus of claim 17, further comprising a clamp member partially surrounding the flange plate and a compliant member disposed between the clamp member and the flange plate.

20. The apparatus of claim 17, wherein each of the first and second domes is quartz.