**CLAIMS**

1. A light distribution system comprising:

a plurality of light converging elements for concentrating light;

a plurality of wavelength selective optical conduits each being operatively coupled to respective of the light converging elements, and configured to receive converged light from the respective light converging element and transport at least a portion of the converged light in the wavelength selective optical conduits; and

a light dispersing module operatively coupled to the plurality of

wavelength selective optical conduits for dispersing light transported in the optical conduits,

wherein the plurality of the wavelength selective optical conduits includes at least a wavelength selective optical fibre engineered to inhibit light transmission at a specific range or ranges of wavelengths, said engineering being in addition to wavelength-dependent base material absorption to substantially block or attenuate radiation for reducing the heat energy carried by the radiation through the wavelength selective optical fibre or for reducing degradation of the wavelength selective optical fibre caused by the radiation.

2. A light distribution system as claimed in claim 1 wherein the plurality of wavelength selective optical conduits include a plastic or polymer optical fibre.

3. A light distribution system as claimed in claim 1 or 2 wherein said engineering includes inclusion of a photonic crystal fibre or holey fibre.

4. A light distribution system as claimed in any one of claims 1 to 3 wherein said engineering includes doping with dopants having wavelength dependent absorption.

5. A light distribution system as claimed in any one of the preceding claims wherein the plurality of wavelength selective optical conduits are adapted to transmit substantially light of visible wavelengths.

6. A light distribution system as claimed in claim 5 wherein the plurality of wavelength selective optical conduits are adapted to transmit substantially light of visible wavelengths while blocking light of a selected range or ranges of wavelengths.

7. A light distribution system as claimed in any one of the preceding claims wherein the plurality of light converging elements form a one or two dimensional array of light converging elements.

8. A light distribution system as claimed in claim 7 wherein the plurality of light converging elements are arranged in a hexagonal or triangular pattern.

9. A light distribution system as claimed in any one of the preceding claims wherein the light dispersing module is one of a plurality of light dispersing modules.

10. A light distribution system as claimed in any one of the preceding claims wherein the plurality of light converging elements includes a first set of ball, or half ball lenses.

11. A light distribution system as claimed in any one of the preceding claims wherein the plurality of light converging elements or the light dispersing module include a plurality of Fresnel lenses.

12. A light distribution system as claimed in claim 11 wherein the plurality of Fresnel lenses are superstructured and stamped into one of the plurality of converging elements for coupling light into or out of the plurality of wavelength selective optical fibres.

13. A light distribution system as claimed in any one of the preceding claims wherein the plurality of light converging elements are each formed integrally with the respective optical fibre.

14. A light distribution system as claimed in claim 13 wherein the light converging elements are each formed within the respective wavelength selective optical fibre which includes a graded refractive index profile for converging light.

15. A light distribution system as claimed in any one of the preceding claims wherein the light dispersing module includes a second set of ball, or half ball lenses.

16. A light distribution system as claimed in claim 15 wherein the second set of lenses form a one or two dimensional array of lenses.

17. A light distribution system as claimed in any one of the preceding claims wherein the plurality of wavelength selective optical conduits are each coupled to the respective light converging element using index matching epoxy.

18. A light distribution system as claimed in any one of the preceding claims wherein the system further comprises a solar panel for receiving light energy.

19. A light distribution system as claimed in claim 18 wherein the solar panel includes photovoltaic materials for generating electricity from the received light energy.

20. A light distribution system as claimed in claim 9 wherein the plurality of dispersing modules are located separately.