



Small heliostats –receiver layout for long-span hanging roof studies

Roof structures for supporting small heliostats include: a hanging roof horizontal diameter (D) and sag (S); and a rim-beam horizontal donut-shape platform (P).

Suggested approximations for beginning layout studies of heliostats and receiver(s) at selected locations include: a diameter of around 30m/98ft; a sag/diameter ratio of around 0.070 (S/D); a catenary hanging contour; and about 1m² reflector area heliostats.

--Vertical heliostat same length posts can be compared to variable height posts.

--A reference may be with layouts on flat roof structures.

--All parameters may be refined with structural engineering participation.

--An elevated receiver on a tower is on the platform, or outside of and adjacent to the platform.

--A 320kw thermal 300C degrees system

Building Integrated Concentrating Solar Power (BI-CSP) research program initiative

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