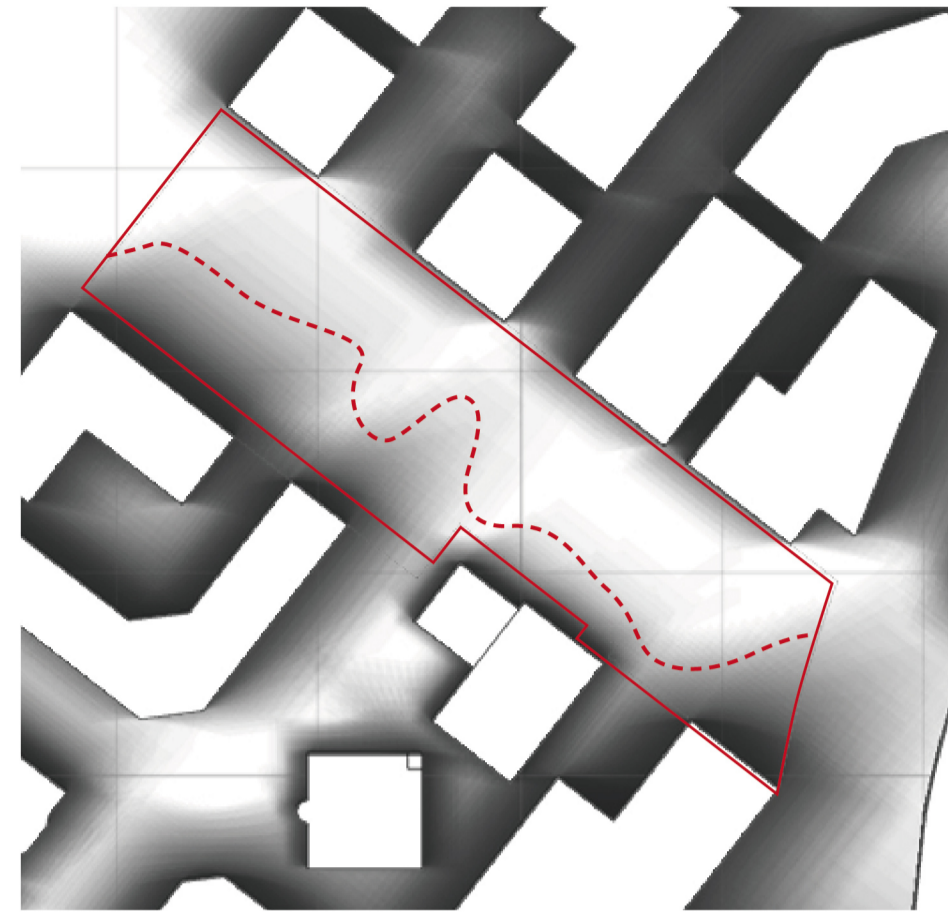
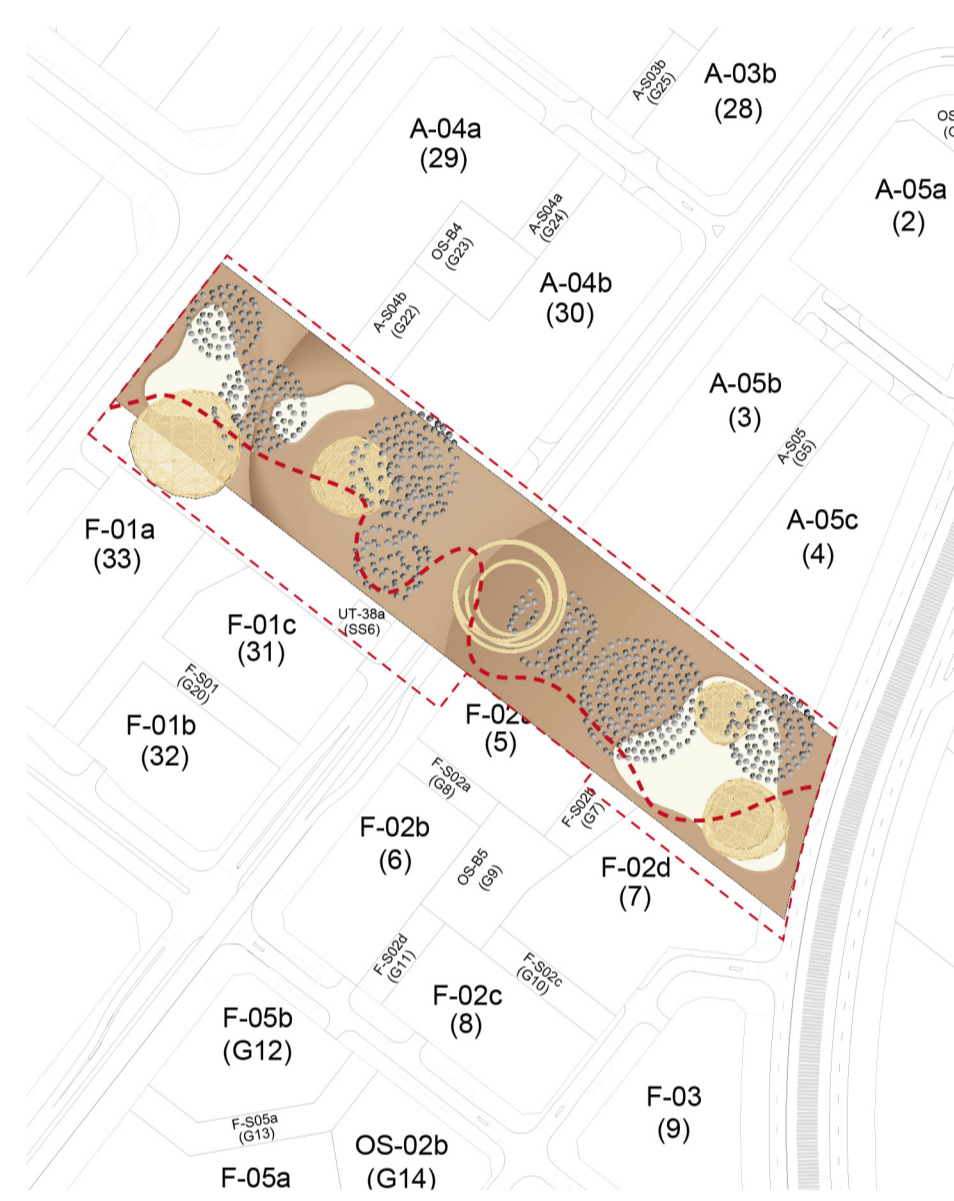


Efficient Range

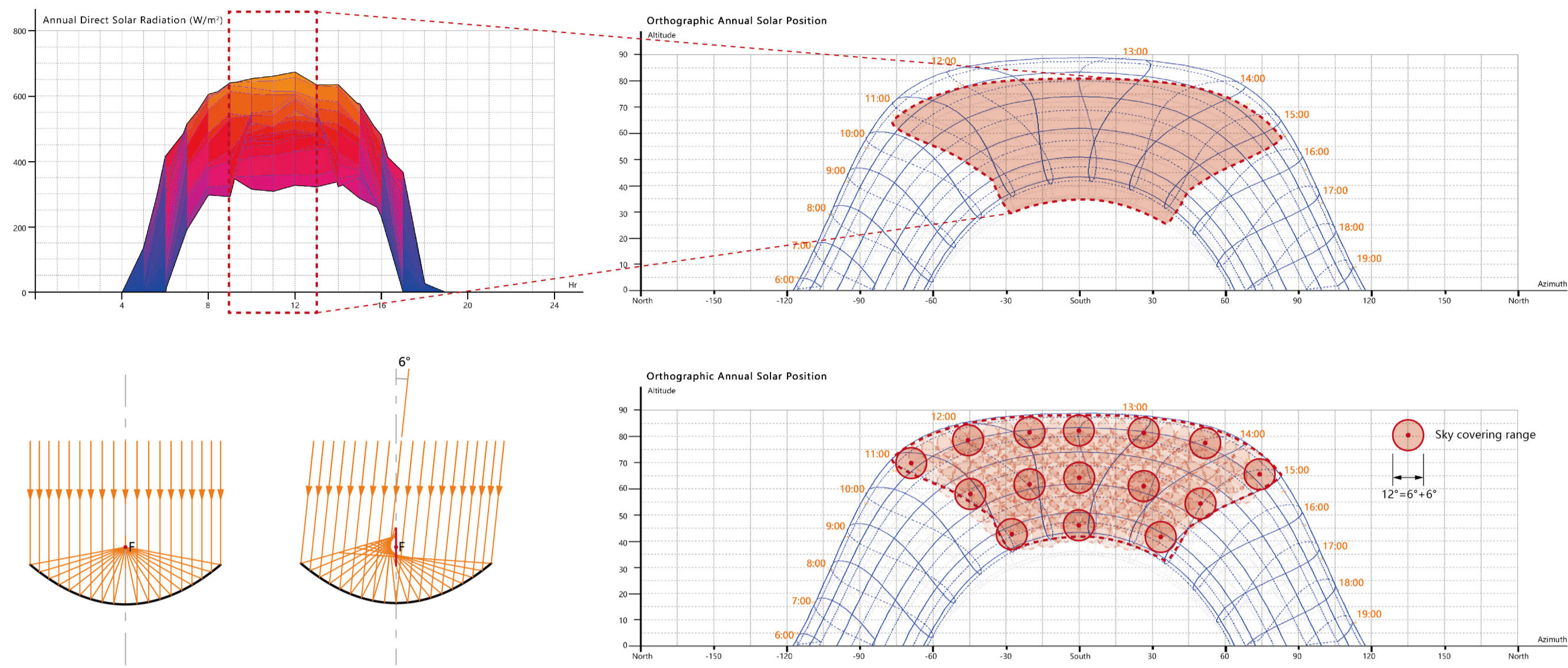


Full year shadow range



Master plan layout according to shadow range

Solar Collection



A parabolic reflector (Length: 2.38m & width: 2.04m) is installed on the top of the artificial plants. The reflector is made of aluminum foil to focus the sunlight on the solar collector (Length along axis: 40cm). Considering the movement of the sun from 10am to 2pm in a day (azimuth between -75~80°, altitude between 35~80°), the curvature and size of the parabolic reflector is discretely calculated so that the angle between sunlight and the axis of parabolic reflector ranges within 6°. As a result, the rate of direct solar collection is up to 80% each collector.

Angle between sunlight and the axis	0°	0.5°	1.0°	1.5°	2.0°	2.5°	3.0°	3.5°	4.0°	4.5°	5.0°	5.5°	6.0°	6.5°	7.0°
Rate of direct solar collection on the solar collector (Length 40cm)	100%	98.0%	97.0%	95.5%	94.5%	92.4%	90.9%	89.8%	87.3%	86.2%	84.6%	82.1%	80.4%	78.2%	75.1%

Environmental impact statement

1. Evaluation of wind

The cloud installations provide shade to the ground and influence the flow of wind. The result of CFS analysis shows that the cloud installations can accelerate the air circulation on the ground surface. Speed of wind is not too high to disrupt comfort. Besides, its streamline contour can distinctly reduce turbulent flow.

2. Evaluation of light

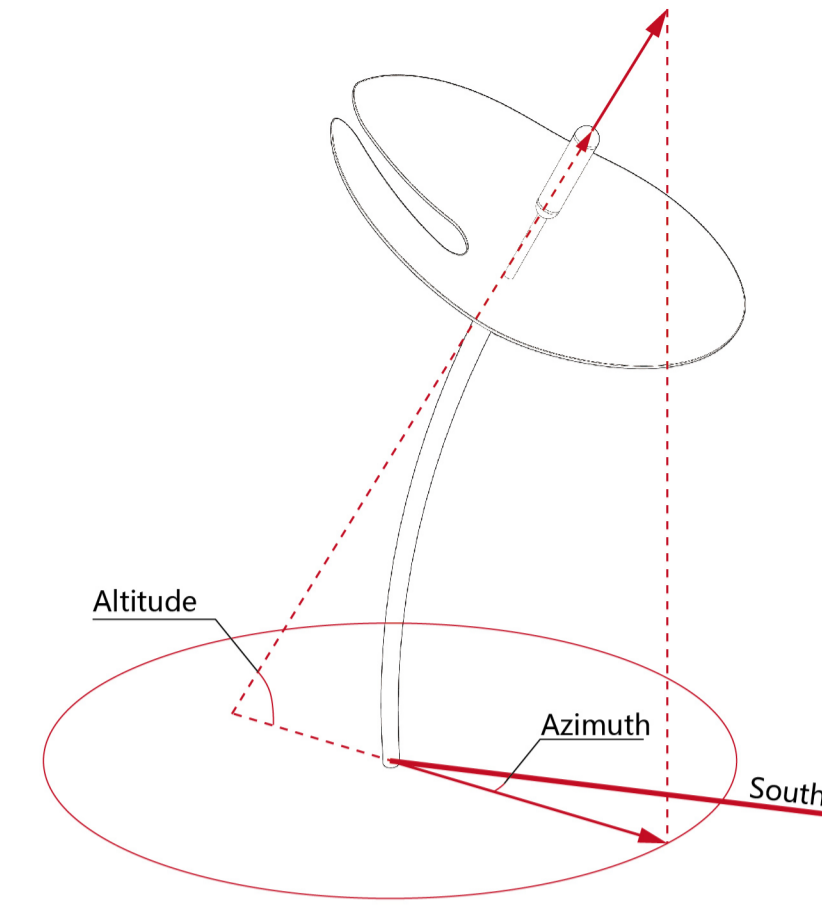
The parabolic reflector is capable of collecting light within its focus. While there is possibility of light diffusion on the periphery of the reflector so as to refract a small amount of sunlight on the surroundings, but not to the extent of light pollution.

3. Evaluation of water and earth

Urban grey water is used in the cooling system. Water flow underground in sealed pipes. Underground water and waste water is not involve, thus no water pollution will be caused. During period of construction, foundation will be excavated for the installation of water circulation system. There is possibility that the ground stability will be affected.

4. Full life-circle

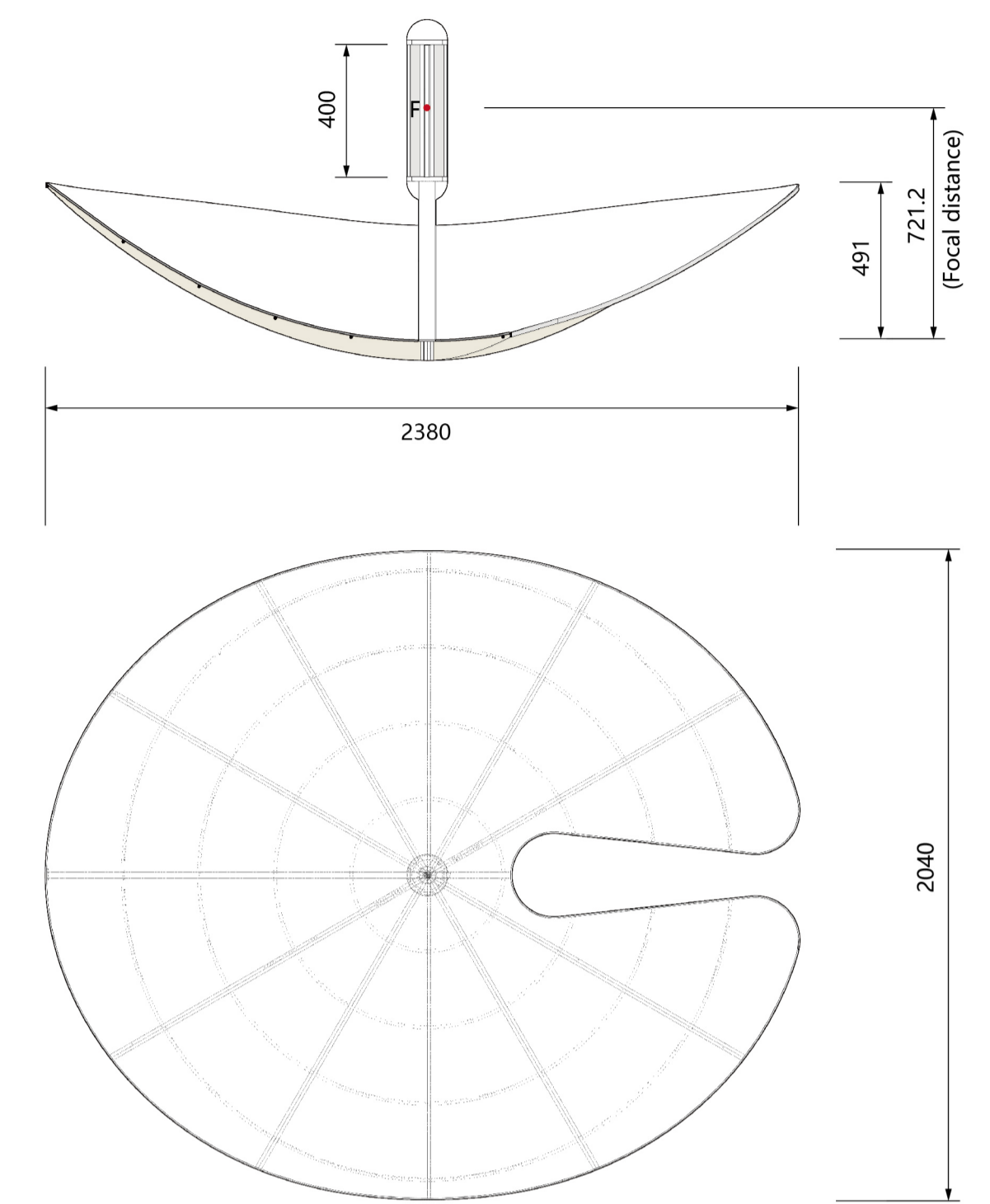
Reclaimed materials are applied throughout its full life-circle of construction, service and recycling. Energy consumption and greenhouse gas emission should only take place in material recycling and reproduction.



Orientation samples

Azimuth	Altitude
-92.3°	64.2°
-85.2°	77.9°
-45.4°	83.5°
+3.8°	86.9°
+46.9°	87.7°
+88.7°	75.3°
+94.2°	61.3°
-59.1°	55.5°
-33.9°	67.2°
+2.3°	69.9°
+39.6°	64.8°
+60.8°	54.2°
-31.8°	34.7°
+0.1°	42.9°
30.1°	36.2°

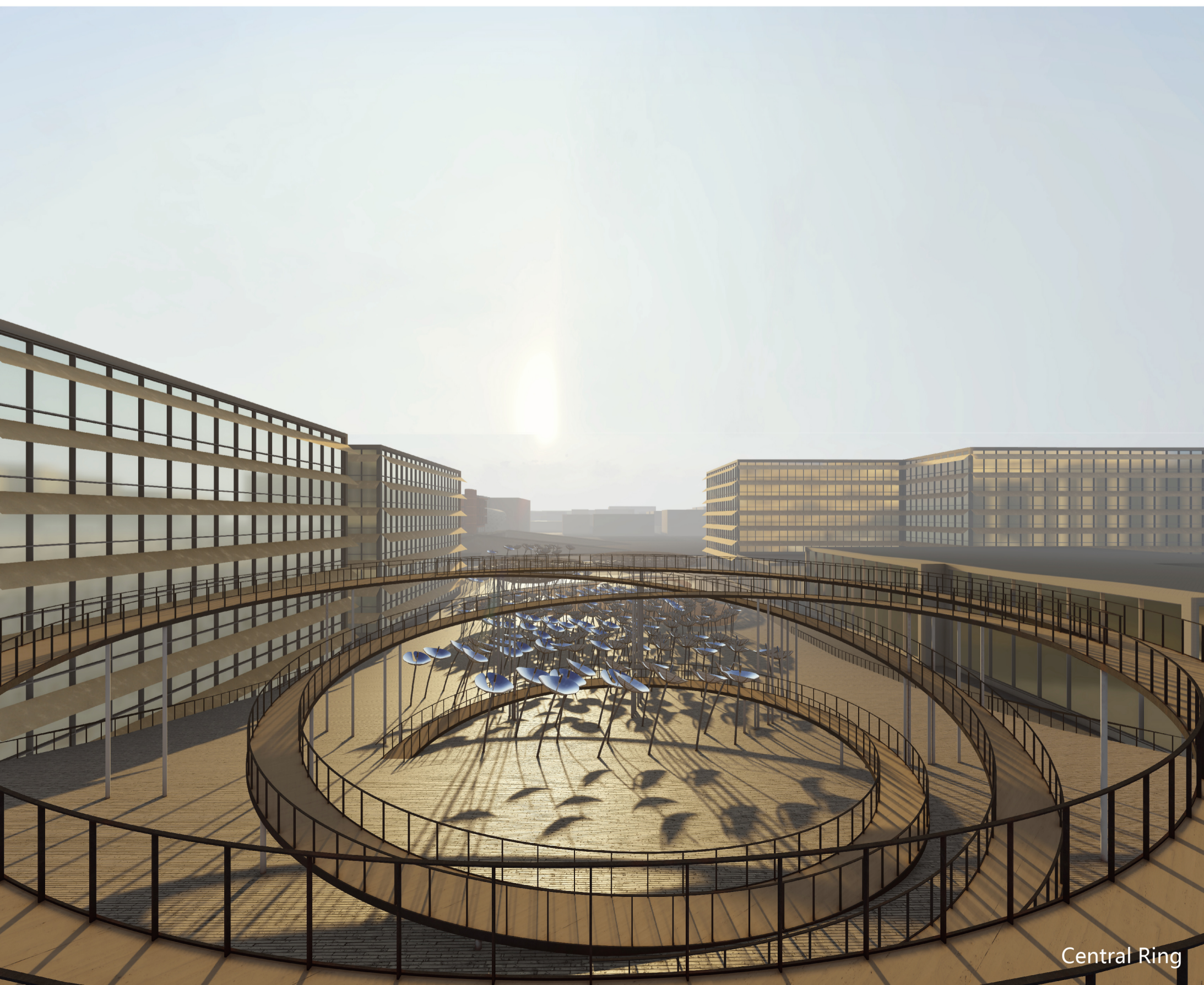
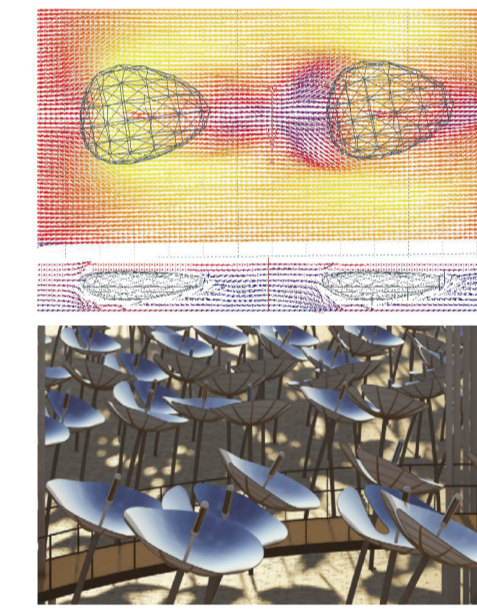
Dimension of Solar Collector



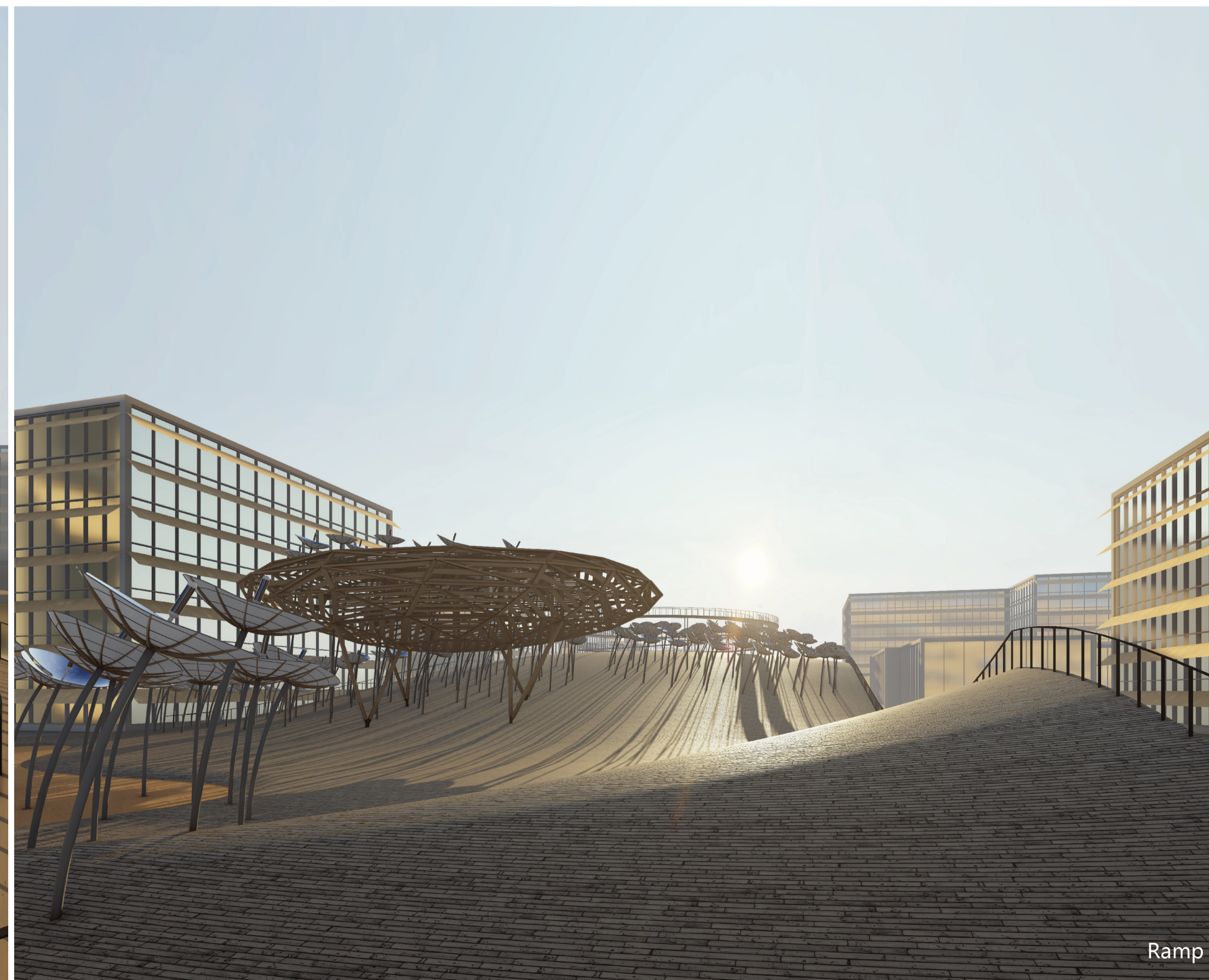
Performance (Take TEG2-07025HT-SS as an example:)

Amount of artificial plants: 643
 Amount of TEG per plant: 80
 Maximum temperature of hot side: 190°C
 Average temperature of cold side: 20°C
 Watts Max.: 6W (ΔT=170°C)
 Watts consumption (For pump, etc.): 3kW

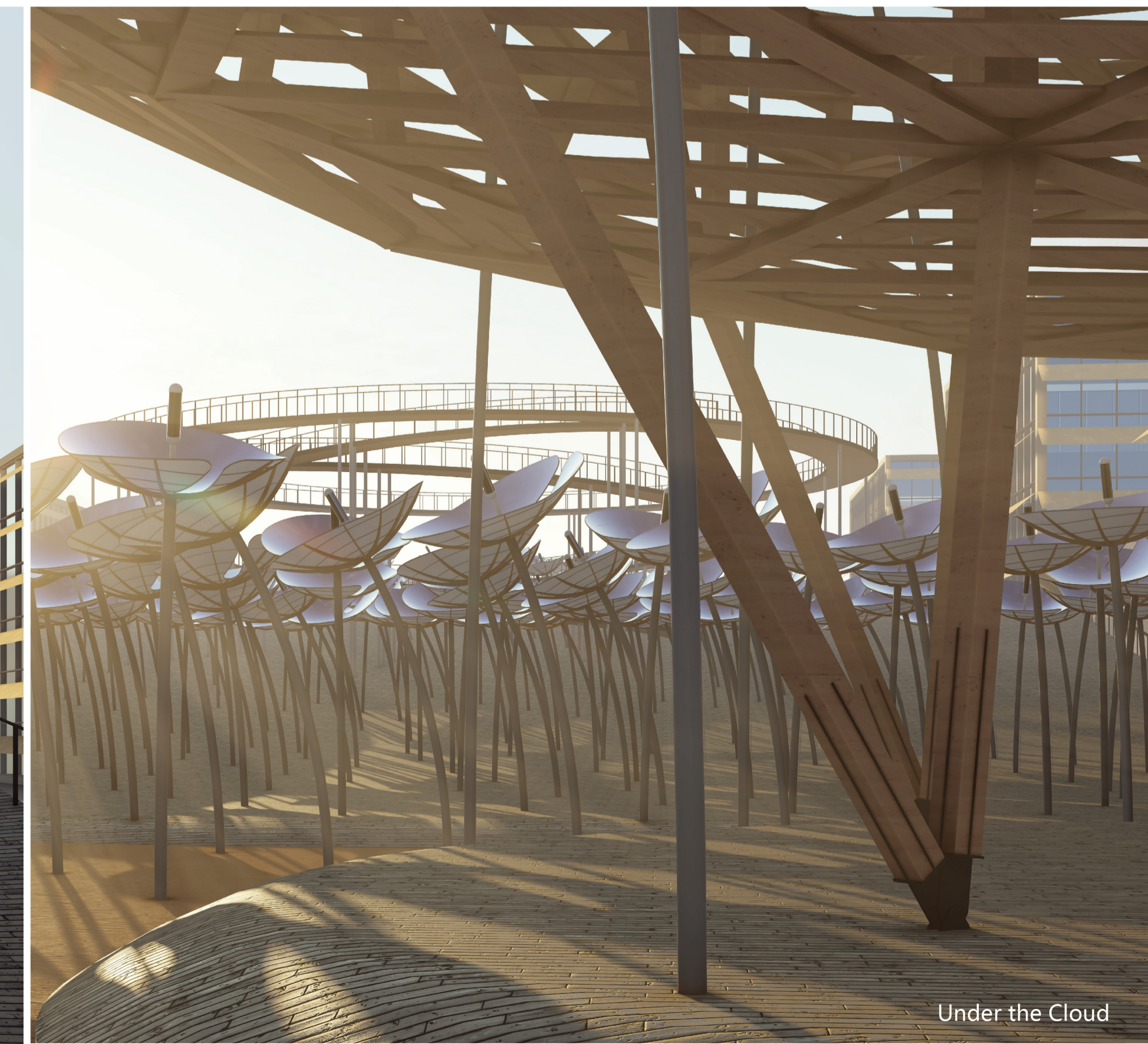
Nameplate capacity: 305.64kWh
 Efficient working hours per day: 4h (10am-2pm)
 Electricity generated besides efficient hours is estimated as equivalent as the value of thermal loss and inefficient generation.
 Annual kWh: 446,230kWh
 Cost of per watt: \$19.6



Central Ring



Ramp



Under the Cloud