Ellipsoidal mirror | TCEA

RoHS

In general, an ellipsoid has two focal points and the light that passes through one focal point also passes through the other focal point after being reflected by the elliptical surface. By using this principle, if one light source is put on one focal point, it is possible to collect light at the other focal point.
It is used to incident the light of the lamp into optical fiber or light guide.

- It obtains high performance condensing by precision aspheric surface processing.
- It can provide long-term stability because it has a protective scratch-resistant coating over aluminum.
- Customer can select a mirror to suit specifications from among the wide variety of products which are classified in the focal position and outer diameter.

Specifications

Material	Tempax®
Coating	Al + SiO_2

Tempax® is a registered trademark of SCHOTT AG company.

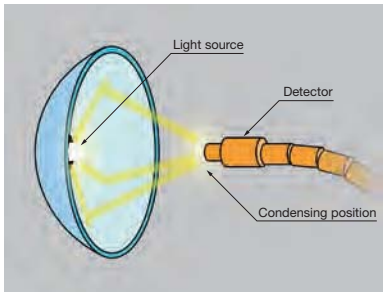
Guide

- Different focal length, outer diameter and hole sizes not mentioned on-line or in our catalog are available as a custom product upon request.
- It is also available for parabolic TCPA mirror, to project the light from the first focal point to infinity.

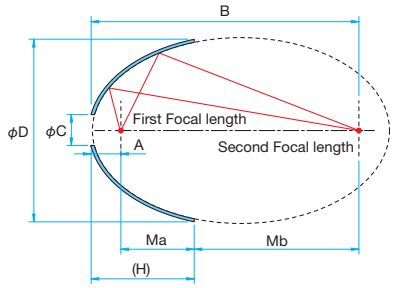
Attention

- The focus is not available on the second focal point when using a light source with directivity, because the light is not reflected by the mirror surface.
- Brightness distribution if away from the second focal point, may result in the distribution of ring-shaped.

Schematic

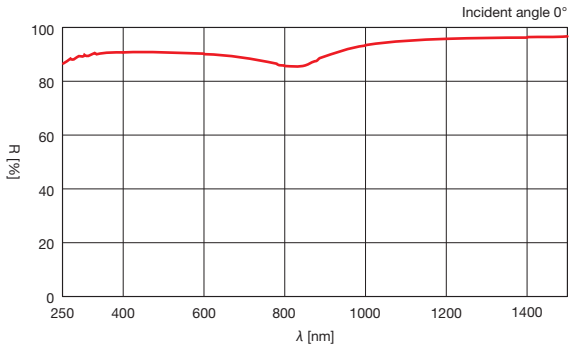


Outline Drawing (in mm)



●Tolerance
Diameter $\phi D^{+0}_{-0.5}$

Typical Reflectance Data R: Reflectance



Specifications

Part Number	Dimension ϕD [mm]	Thickness* H [mm]	Hole dimension ϕC [mm]	Ma [mm]	Mb [mm]	First Focal length A [mm]	Second Focal length B [mm]
TCEA-64C-11/78-SH18	ϕ64	44	ϕ18	31	36	11	78
TCEA-76C-13.5/120-SH18	ϕ76	42	ϕ18	25	81.5	13.5	120
TCEA-86C-14/134-SH20	ϕ86	46	ϕ20	32	88	14	134
TCEA-105C-22/145-SH27	ϕ105	44	ϕ27	20	103	22	145
TCEA-113C-17/272-SH27	ϕ113	54	ϕ27	36	219	17	272
TCEA-124C-23/195-SH25	ϕ124	56.5	ϕ25	32.6	139.4	23	195
TCEA-128C-18/288-SH31	ϕ128	67	ϕ31	50	220	18	288
TCEA-148C-28/252-SH30	ϕ148	63	ϕ30	34.6	189.4	28	252

* The thickness "H" is design value and there is a possibility of individual variability in the actual product. It is Not guaranteed value.