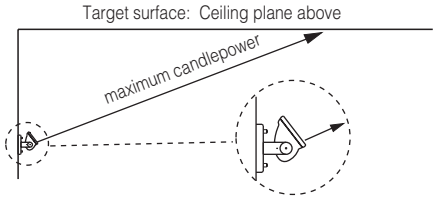
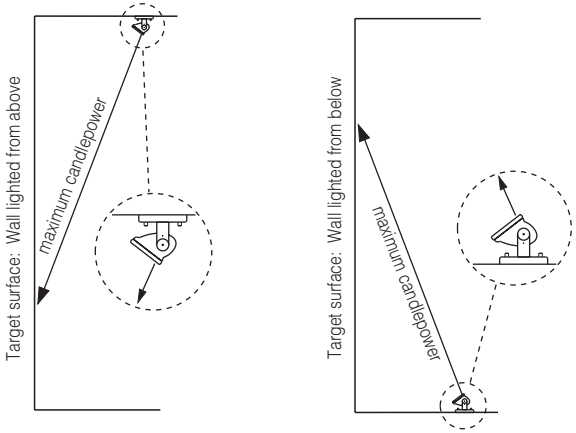
Orientation

elliptipar luminaires light ceiling or wall planes from one edge, when oriented as shown below.





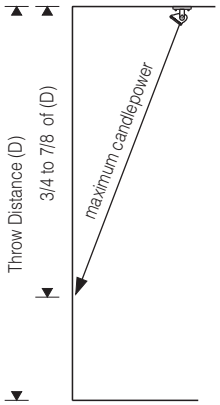
Proper placement of luminaires is necessary to maximize uniformity on the lighted surface, as well as reduce the potential of glare.

The following are general guidelines for luminaire placement in terms of aiming, setback, spacing and brightness control.

Aiming

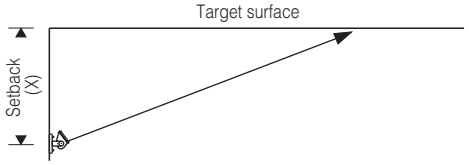
Proper aiming is dependent on two factors: the luminaire's maximum candlepower and the length or height of the surface to be lighted (the *throw distance*, see dimension **D** at right). The luminaire should be aimed such that the line of maximum candlepower strikes the lighted surface at approximately 3/4 to 7/8 across or down the lighted surface. The angle of maximum candlepower may be found on the luminaire's photometric report.

Most **elliptipar** luminaires have adjustable reflectors, allowing them to be "fine-tuned" during installation.



Setback

Setback (**X**) is the perpendicular distance from the lamp center to the target surface, as shown below. Proper setback is necessary to avoid excessive bright spots on the target surface, and to take full advantage of the luminaire's asymmetric distribution.



Proper setback depends on the throw distance (**D**, see previous section) and on whether the lamp source is a point source or a linear source. The chart below shows guidelines for determining proper setback based on these two factors:

If the lamp source is a	*the setback should be at least ...*	*... but not less than*
Point source (tungsten halogen, metal halide, quad tube, hex tube fluorescent, long twin tube fluorescent in individually mounted fixtures)	1/4 D	30" (760mm)
Linear Source (T8, T5 fluorescent)	1/8 D	12" (254mm)
High Output Linear Source (T5 HO, T12 HO/VHO, long twin tube fluorescent)	1/8 D	18" (460mm)

Spacing

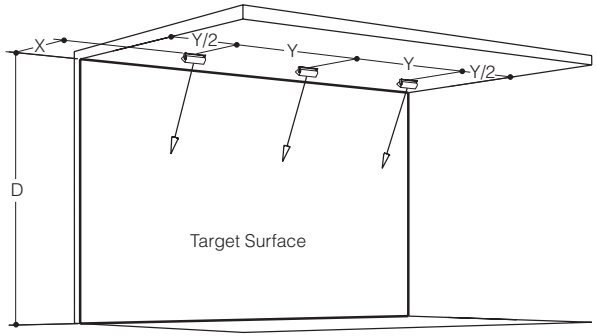
On-center spacing (**Y**, see diagrams at right) impacts the lateral uniformity on the target surface. It is dependent on the setback (**X**), and generally applies to point source luminaires only. It is recommended that on-center spacing of point sources be between 1-3/4 and 2 times the setback value.

elliptipar recommends that linear source luminaires be mounted end-to-end to form continuous rows. Socket shadows on the target surface will be minimized provided recommended setbacks are maintained (see above).

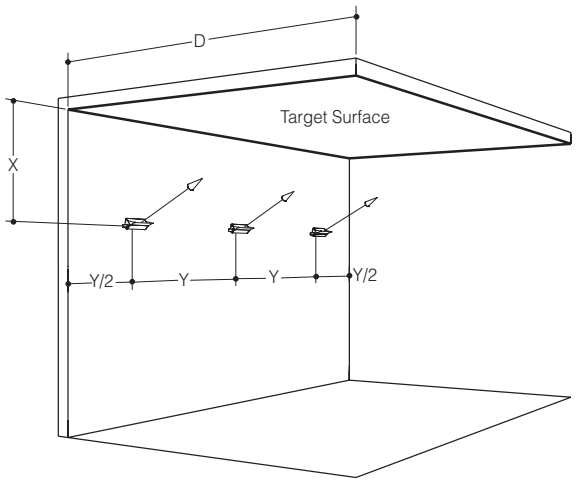
Brightness Control

Bright lenses or reflectors within an observer's normal field of view may result in glare. Therefore, controlling luminaire brightness is very important to the success of an application. For uplighting, the worst case viewing position is often the farthest and/or most elevated position in the space. For wall washing, the worst case viewing position is often near doorways or where people circulate around wall corners. If luminaires cannot be located so as to conceal lens brightness from view, **elliptipar** offers a variety of options and accessories which may provide adequate shielding. (See the Accessories Section for more information.) Luminaires may also be concealed within field constructed coves or customer supplied sconce enclosures. (See pages I-2.0 and I-3.0 for design guidelines.)

Spacing - Washing Down a Vertical Surface



Spacing - Uplighting a Horizontal Surface



Dimension Key

D = Throw distance
X = Setback (target surface to lamp center)
Y = On-center spacing

I 1.0

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