A circular reflector with a point light source at its centre of curvature produces a light distribution of the type shown in Figure 85. This type of reflector is widely used in projection systems and spotlights to increase the amount of light delivered to the associated lens system.

A parabolic reflector with a point light source at its focus produces a parallel beam of reflected light (Figure 86). Moving the light source in front or behind the point of focus will cause the beam to converge or diverge. The parabolic reflector is widely used in spotlight design either exactly, when the reflector is smooth, or approximately, when the reflector is facetted.

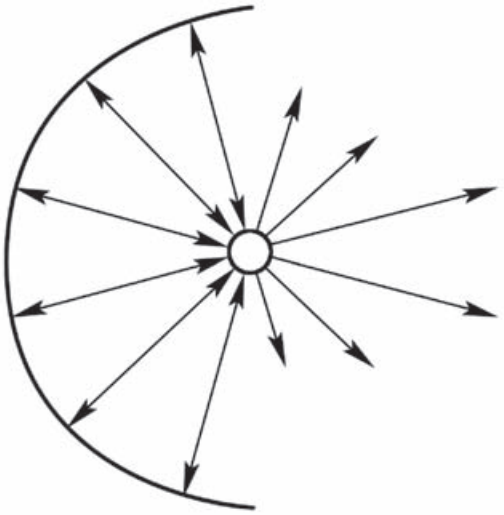

Figure 85
The light distribution from a circular reflector with a point light source at its centre of curvature.

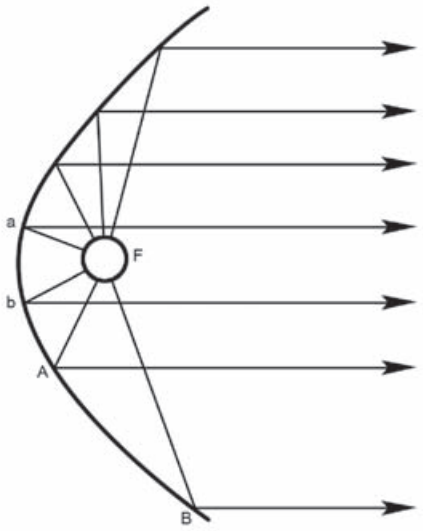

Figure 86
The light distribution from a parabolic reflector with a point light source at its focus. The beam intensity will be greater at the centre than at the edge — compare cones aFb and AFB.