

1. A parking lot is illuminated at nights by identical lamps at the top of two poles 10m high and 16m apart. Assuming the lamps radiate equally in all directions, compare the illuminance at ground level for points directly under any of the lamps and the point on the ground which is midway between the lamp posts.
2. A small source of 100cd is placed at the focal point of a spherical mirror of 50-cm focal length and 10-cm diameter. The mirror produced a circular light spot at the screen which is placed perpendicular to the optical axis of the system at a distance of 20 cm behind the light source. Find the illuminance in point A (see the picture).

