## Answer #251

The answer is (b): the intensity of the light bulb will be less. In fact, the bulb will go out, as seen in the photograph at the right below.



The waves from the transmitting antenna are polarized in the horizontal direction - the orientation of the antenna. A receiving antenna perpendicular to the receiving antenna will only send or receive vertically polarized waves, so the light will go out.

## Archive 13

Question of the Week

Outreach Index Page

Lecture-Demonstration Home Page



For questions and comments regarding the *Question of the Week* contact <u>Dr. Richard E. Berg</u> by e-mail or using phone number or regular mail address given on the <u>Lecture-Demonstration Home Page</u>.