

## MODES OF DETECTION

### Light Operate vs. Dark Operate

In most applications, photoelectric sensors **generate an output** any time an object is detected.

If this occurs **when the photodetector sees light**, the sensor is said to be working in the **light operate** mode.

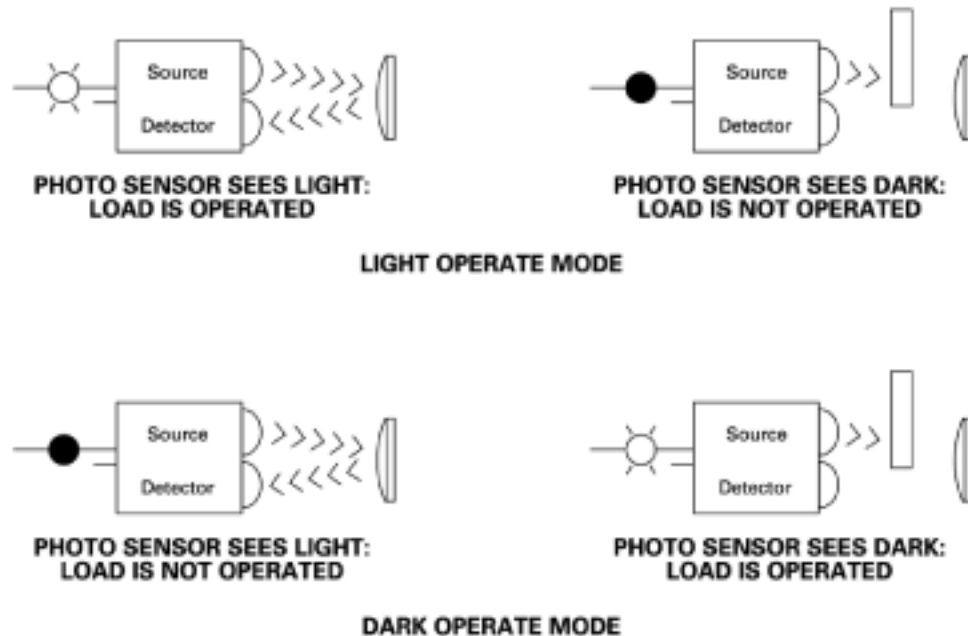


FIGURE 83: LIGHT OPERATE AND DARK OPERATE

If the control **generates an output when the photodetector does not see light**, the control is said to be working in the **dark operate** mode.

Earlier, we briefly described the four basic operating modes that photoelectric sensors offer. These are:

- Thru-Beam
- Reflex (Retro-Reflective)
- Diffuse Reflective
- Background Rejection (Perfect Prox<sup>®</sup>)

Let's now take some time to understand how each method works.