Sample lighting assessment

Reading labels on a warehouse rack

Teaching example with simulated readings.

While picking an order, a worker reads two labels from the aisle. One box sits farther back under the shelf above. The other reaches the front edge.



Illustrative scene

Where to measure

Both labels in this example are 1.40 m above the floor. Place the light meter sensor at the centre of each label, parallel to its vertical face and facing the aisle. Avoid casting a shadow over the sensor.

What changes in the trial

An existing luminaire is aimed toward the box fronts. For comparison, the measuring points, shelf contents and power setting stay the same, with no daylight contribution.

Simulated vertical illuminance

Reading point	Before	After aiming
P1 · Recessed label	90 lx	**180 lx**
P2 · Front-edge label	210 lx	**210 lx**

What the readings show

At P1, the light reaching the label doubles. At P2, the reading stays at 210 lx. The two points illustrate the local effect of the adjustment. A compliance assessment requires task-specific criteria and a representative survey.

Decision and follow-up

Trial the adjustment on one rack bay. During the usual shift, check with the order picker whether the code is legible and whether glare or shadows appear elsewhere. Record the points, time, settings, instrument and its calibration before deciding whether to extend the adjustment.

Method references

INSST · Measuring plane, Annex IV

DOE / PNNL · Before-and-after comparison