Exemplar A

The luminosity of Sally’s lightbulb decreases when she use the 3 meter wire. The longer the wire, the lower the strength of the electric charge. The strength of the electric field decreases by a square of the length of the wire. Sally’s bulb will shine the weakest at the end of the longer wire. The resistance of the wire will change the luminosity of the bulb. Longer, thicker wieres have greater resistance to the movement of electrons. (at reasoning)

Exemplar B

The texts “Electric Current Depends on Resistance” and “Electric Field Strength” explain how and why luminosity decreases with distance. The size and width of a wire affect resistance. The longer and thinner the wire, the more resistance to flow of electronic current. As a result, luminosity decreases with a higher resistance. Electric Field Strength and magnitude are dependent on location. Both decrease when distance increases. If Sally increases the length of her wire from 1 meter to 3 meters, luminosity would decrease. (at end)