Isopod Light Preference

Isopods (roly-polies) are a type of arthropod that responds to moisture, temperature, and light. Listed below are a set of experiments in which students can observe the behavior of isopods under modified and adverse conditions.

Light Response Experiment: Choice studies can be conducted to see if isopods prefer light or dark conditions.

Question: Are roly-polies attracted to darkness?

Hypothesis: If we offer, roly-polies a choice between light and dark, they will choose dark.

Materials and Methods: Place an isopod in the center of a petri dish. Be sure to line the petri dish with a moist filter paper. Cover one side of the petri dish with black construction paper. On the other side place a light source, such as a flashlight. Do the roly-polies prefer light or dark conditions? Record at various time intervals which side of the petri dish the roly-poly is on. Remember to place only one roly-poly per petri dish because they influence one another's behavior when together. It is important to replicate so setup several petri dishes, keeping in mind that each petri dish represents a replication.

Results: Your results is a description of the behavior of the roly-polies in the dark/light dish. Record your results at 5 minutes, 15 minutes, 30 minutes, 1 hour (table format).

Conclusion: If offered a choice between light and dark, roly-polies will almost always choose dark. The prediction is confirmed or rejected.

Roly-Poly Experiment	5 Minutes	
Rep	Light	Dark
1		
2		

3		
4		
5		
6		
Mean Number		
Percentage		

Roly-Poly Experiment	15 Minutes	
Rep	Light	Dark
1		
2		
3		
4		
5		
6		
Mean Number		
Percentage		

Roly-Poly Experiment	30 Minutes	
Rep	Light	Dark
1		
2		

3		
4		
5		
6		
Mean Number		
Percentage		

Roly-Poly Experiment	60 Minutes	
Rep	Light	Dark
1		
2		
3		
4		
5		
6		
Mean Number		
Percentage		