**UNIVERSITY OF GAZİANTEP**

**DEPARTMENT OF ENGINEERING PHYSICS**

**EP 336 ENGINEERING PHYSICS LABORATORY – I**

**Exp 3: Characteristic of a Phototransistor**

**Name-Surname:**

**Student ID:**

**Submission Date:**

**DATA SHEET**

**Table 1: The output voltage of the phototransistor.**

|  |  |
| --- | --- |
| **Lamp Filament Voltage (V)** | **Photoconductor Output Voltage (V)** |
| **0** | **5.01** |
| **1** | **5.01** |
| **2** | **4.95** |
| **3** | **4.52** |
| **4** | **3.315** |
| **5** | **1.226** |
| **6** | **0.842** |
| **7** | **0.816** |
| **8** | **0.8** |
| **9** | **0.788** |
| **10** | **0.781** |

**Calculations:**

* Draw the output voltage as a function of lamp filament voltage graph by using the Table 1 data
* Explain briefly the working principle of the phototransistor.