Counting the resistor

LEDS:

<https://botland.com.pl/diody-led/19985-zestaw-diod-led-5mm-justpi-30szt-5904422329259.html>

Red diodes:

* 20mA
* 2,0 - 2,3 V

Connecting to 5V

Resistor range:

(5V - 2,0)/0,02A = 150 O

(5V - 2,3)/0,02A = 135 O

So, minimum 150O.

Closest what i had was 220O

So, the power output:

(5V - 2,0)/220OM = 13mA

(5V - 2,3)/220OM = 12mA

A bit low in comparison to 20mA, but whatever.