NOTE: This was originally written and saved in .odt format. Formatting may differ slightly when opened in other document processors.

Here the table tabulates the values of depth (z) along with the corresponding brightness of pixel. Since the images are in grayscale, the values of R G B are same, so the brightness of the pixel is simply the value of any of these. A value of 0 indicates totally black whereas a value of 255 is a pure white.

Note that a value of z = 80 cm is missing due to experimental conditions. The value of R/G/B was measured with a feature in a software called "Pinta" which was available in Ubuntu 18.04 LTS

Serial No.	Depth of image (z) (in cm)	Brightness(B) (255 is max brightness)	Absolute of Forward difference of brightness ($|B_{n+1} - B_n|$)
1	20	96	20
2	25	116	37
3	30	79	13
4	35	92	16
5	40	108	6
6	45	114	19
7	50	133	2
8	55	131	8
9	60	139	19
10	65	120	24
11	70	144	2
12	75	146	7
13	85	153	49
14	90	104	19
15	95	123	0
16	100	123	1
17	105	147*	8
18	110	148*	2
19	115	156*	0
20	120	154*	4
21	125	158*	3
22	130	155*	3
23	135	158*	-

```
* - The values marked asteriks means that the object was totally invisible in
the depth maps.
```

Calculations:

1) **Maximum Resolution**

$max(|B_{n+1} - B_n|) = 49$ at $z = 85cm$
step-size = 5cm
Resolution at (z=85cm) is

Max-Resolution = (5cm/49) = 0.102cm

2) **Average Resolution**

average $(|B_{n+1} - B_n|) = 11.91$
step-size = 5cm

Average-resolution = 5cm/11.91 = 0.420 cm

3) **Average Resolution-2**

The object under study was not satisfactorily visible in the range of values z = 17cm to z = 23cm. Thus it might be necessary to instead calculate a weighted average of resolution. For simplicity, the weights of the aforementioned range were given 0.

average $(|B_{n+1} - B_n|) = 16.06$
step-size = 5cm

Weighted-average resolution = 5cm/16.06 = 0.311 cm

OUTPUT PHOTOGRAPHS:

They are in the order of the table, i.e. depth value varies from 5cm to 115cm