Narika product name:

Ray Box L-2

Product Description: Portable High-brightness LED Ray Box

Catalog Number: D20-1507-W0

Overall advantages to users:

- Possible to emit a <u>linear ray</u>
 <u>bright and well-defined enough</u>
 even in a classroom of normal
 illumination level because of the
 built-in light source unit called
 "Beam LED".
- ◆ The "Beam LED" is a unique structure of light source developed by Narika with high brightness LED for optical experiments in schools.
- Number of ray(s) emitted from the Ray Box can be chosen from "1", "2" or "3" rays. Color of the ray(s) is switchable from single color (white) to tricolor (white, red and green) and vice versa.
- By using the lever, parallelism of emitted beams can be adjusted.
- About <u>3cm-thick</u> "belt-like" beam in a vertical direction is emitted so that the ray(s) is well-defined during/after transmitting through a lens.

Benefits to users:

• To all users:

➤ If tricolor beams are emitted (red at one end, white in the middle and green at the other end) to transmit them through a convex lens, it is easy to <u>observe how each beam travels before/after the refraction</u> (→ See below image (1) and (2)).

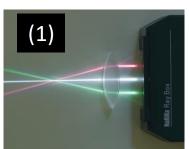
• To teachers:

- ➤ <u>Portable</u> because dry cell battery is one of the options for power source.
- ➤ <u>Students' safety</u> is secured because LED is used for the light source that is much less harmful for eyes than laser.
- ➤ Easy to manage students' activities because experiments can be carried in a classroom of normal illumination level (with lights on).

• To students:

➤ <u>Reflection from and refraction by an object</u> with a certain thickness will be clearer and better-defined because of the 3cm-thick beam in a vertical direction compared with laser beam that is a typical point light source.







Keywords:

- Light reflection
- (→ See below image (3))
- Light refraction
- LED Light Source
- Safe and Portable

Specifications:

- Light source: Highbrightness white "Beam" LED, Cylindrical lens, Color filter with slits
- Power source (two options, sold separately):
- ① Size AA battery (x4)
- ② AC adapter
- Size: 110 x 112 x 52mm
- English ver. instruction manual available? → Yes
- Movie available? → No

