Elastic Light Guide Technical Information



This elastic Light guide is jointly developed with Fukuvi Chemical Industry Co., LTD.. With excellent light guide property of KURARITY[™], only one LED is needed to illuminate up to 3 meters length of the light guides. Any color you want is easily produced by changing the color of LED, as the light guides themselves is milky white.

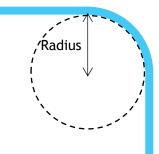
Standard Grades

Standard KURARITYTM light guides are offered in 3.5 and 6.3 mm diameters with round cross sections up to three meter in length. For customized cross-sectional shapes and diameters, please contact your KURARITYTM sales representative.

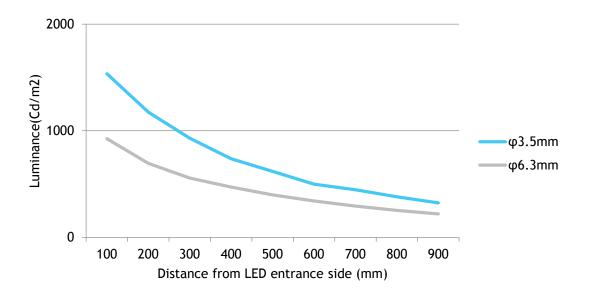
Properties

Recommended Minimum Bend Radius

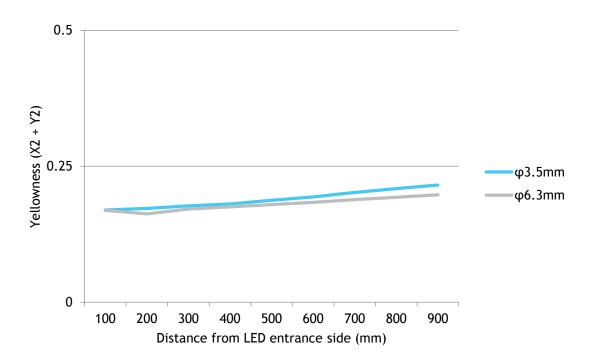
Diameter (mm)	Radius (mm)
6.3	75
3.5	25



Luminance



Color Stability



Test method:

The LED light source is put on one side of the test specimen rod and the spectroradiometer is put 600mm away from the test specimen rod. Turn on the LED light source and then the rod-side luminance and color are measured.

Specification of the LED light source: Luminous flux 135lm, Directivity 120°

Environmental Property

The luminance does not change after conducting the following tests.

Test	Conditions
Heat resistance	80° C x 500hr
Heat and cold resistance	80° C x 24hr => R.T. => -30° C x 24hr => R.T. (10cycle)
Humidity and cool-heat cycling test	80° C/90%RH x 2hr => R.T. => -30° C x 2hr => R.T. (10cycle)
Cold and moisture resistance	-40° C x 7.5hr => R.T. => 23° C/80% x 15.5hr => R.T. => -40° C x 7.5hr => R.T. => 50° C/95% x 15.5hr => R.T. (4cycle)
Moisture resistance	50° C/95% x 500hr
Water resistance	40° C x 500hr in water
Cold resistance	-30° C x 500hr

Chemical Resistance

The surface appearance is not changed after the following chemical resistance tests.

Chemicals	3% Hydrochloric acid, 10% Hydrochloric acid
	10% Ethanol
	5% Sodium hydroxide
	Ethyl alcohol
Food	Soy sauce, worcestershire sauce, ketchup, mayonnaise,
	Salad oil, salt, vinegar,
	Coffee, whisky
Others	Leather wax, Automotive surface cleaner, Gasoline,
	Petroleum benzene, paint thinner, lacquer thinner,
	Synthetic sweat, weak alkaline glass cleaner,
	Sunscreen
	Window washer fluid (50% Isopropyl alcohol and 50% distilled water),
	Cleaner (95% distilled water and 5% neutral detergent)

Test Method:

The chemicals listed above are dropped or applied on the surface of the test specimen. R.T. x 24hr => washing in running water => R.T. x 1hr

All the tests are conducted by Fukuvi Chemical Industries Co., Ltd. The figures should be regarded as guide values only and not as binding minimum values.

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