FUJIFILM

Ultraviolet-light Distribution Measurement Film

●Instruction Manual●

UVSCALE

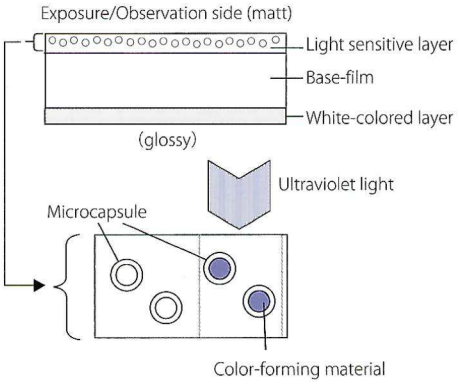
Structure and How it works

●Structure

As shown to the right, one side of the base film has a ultraviolet light sensitive layer, with the opposite side having a white-colored layer. The light sensitive layer changes color according to the amount of ultraviolet light it receives, so the amount of light distributed on the exposed surface is easily seen by observing the intensity of the color.

●How it works

There is a color-forming material contained inside microcapsules that turns blue when exposed to ultraviolet light.



How to use

In the black bag is UVSCALE, which changes color when exposed to ultraviolet light. In the blue bag is a reducing light film that allows you to adjust the amount of light by using it on top of UVSCALE.
(UVSCALE L includes only UVSCALE.)

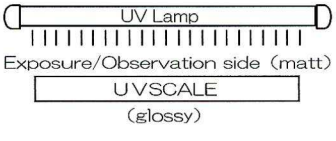
Type	Black bag	Blue bag
UVSCALE L	UVSCALE	–
UVSCALE M	UVSCALE	Reducing light film for M type
UVSCALE H	UVSCALE	Reducing light film for H type

Take UVSCALE and the reducing light film out of their bags, and cut to a required size. Place UVSCALE on the location you wish to measure, and expose it to ultraviolet light. Then aim a UV lamp at the matt side of UVSCALE.

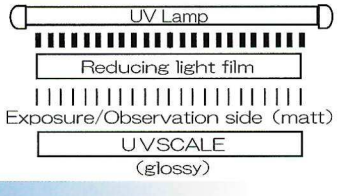
You can also take an appropriate measurement by exposing light through the reducing light film when using medium to high amounts of light (when the density of UVSCALE would be saturated if used alone).

After exposing to ultraviolet light remove both UVSCALE and the reducing light film from the location you measured. By observing the color distribution on UVSCALE, you can see the distribution of ultraviolet light. In order to roughly determine the amount of ultraviolet light, compare UVSCALE colors with a standard color sample. Use the matt side for observing.

●For low levels of light
Use UVSCALE L.This is a mono sheet type with only UVSCALE.



●For medium to high levels of light
Use UVSCALE M or H. These are two sheet types, where a reducing lght film is placed over UVSCLE.



Precautions for Use

①Please note that UVSCALE will be affected by sunlight and regular fluorescent lights, be careful once the film is removed from the plastic bag.
②Colors may vary depending on the conditions such as kind of lamp, intensity of ultraviolet light, ambient temperature and humidity.
③Depending on a storage condition, UVSCALE may have a slight ground fogging. But it does not influence the measurement in the recommended measurement range.
④Moisture, oil or fingerprints on UVSCALE and the reducing light film may leave marks, causing color unevenness.
⑤UVSCALE and the reducing light film is not reusable.
⑥Contact with UVSCALE for long periods of time may cause a skin reaction. It is recommended that gloves be worn during handling of the film.
⑦UVSCALE has a slight odor, but it is harmless.
⑧Use UVSCALE and the reducing light film before the date printed on the packaging.

Precautions for Storage

①Keep any unused UVSCALE and reducing light film in its original bags. Store in a dark, cool place (below 15C) away from direct sunlight.
②Store the exposed UVSCALE in a dark, cool place.
③Make sure to keep UVSCALE away from chemicals and solutions which may cause problems such as discoloration.

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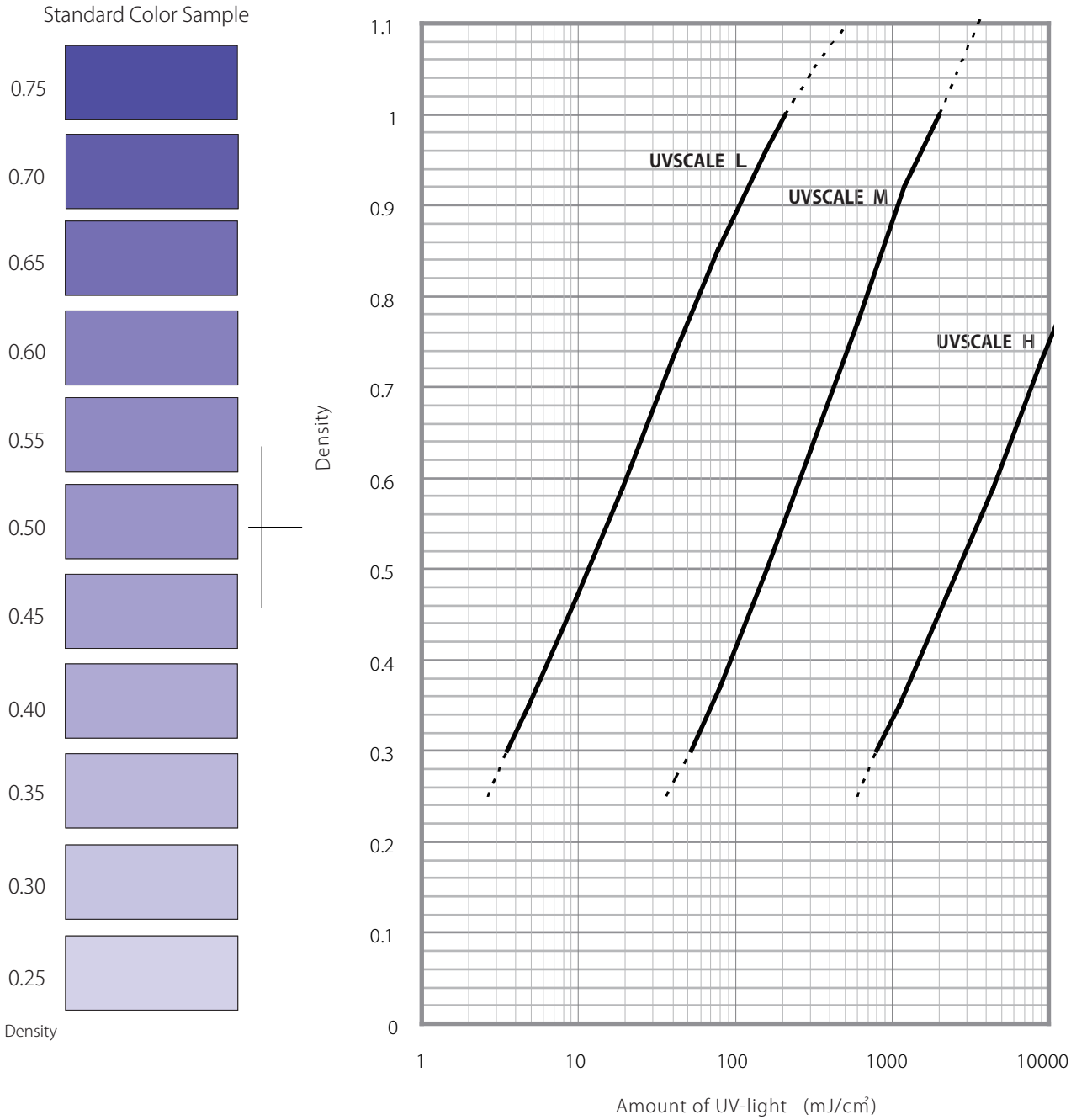
Standard Color Chart

--- High-pressure mercury lamp ---

The following are color characteristics generated by a high-pressure mercury lamp. However, please note that these color characteristics are values generated by using FUJIFILM light sources and devices, so there may be differences in color density for a given amount of light due to differences and variations in individual lamps or environments.



※1 : Each density is the value measured by FUJIFILM. It is not a warranty of density level.

※2 : The amounts of UV-light are values using a 365nm UV illuminometer.

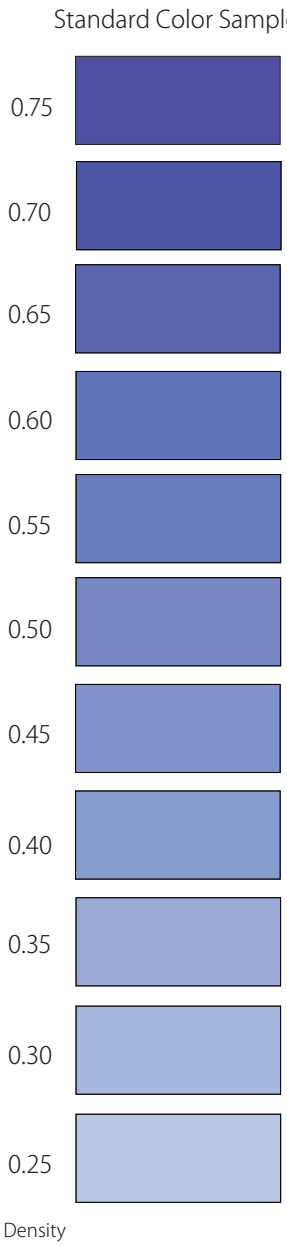
※3 : The solid lines on the graph show the recommended measurement range. The broken lines represent values that are not as precise as the solid lines and should be used as a reference only.

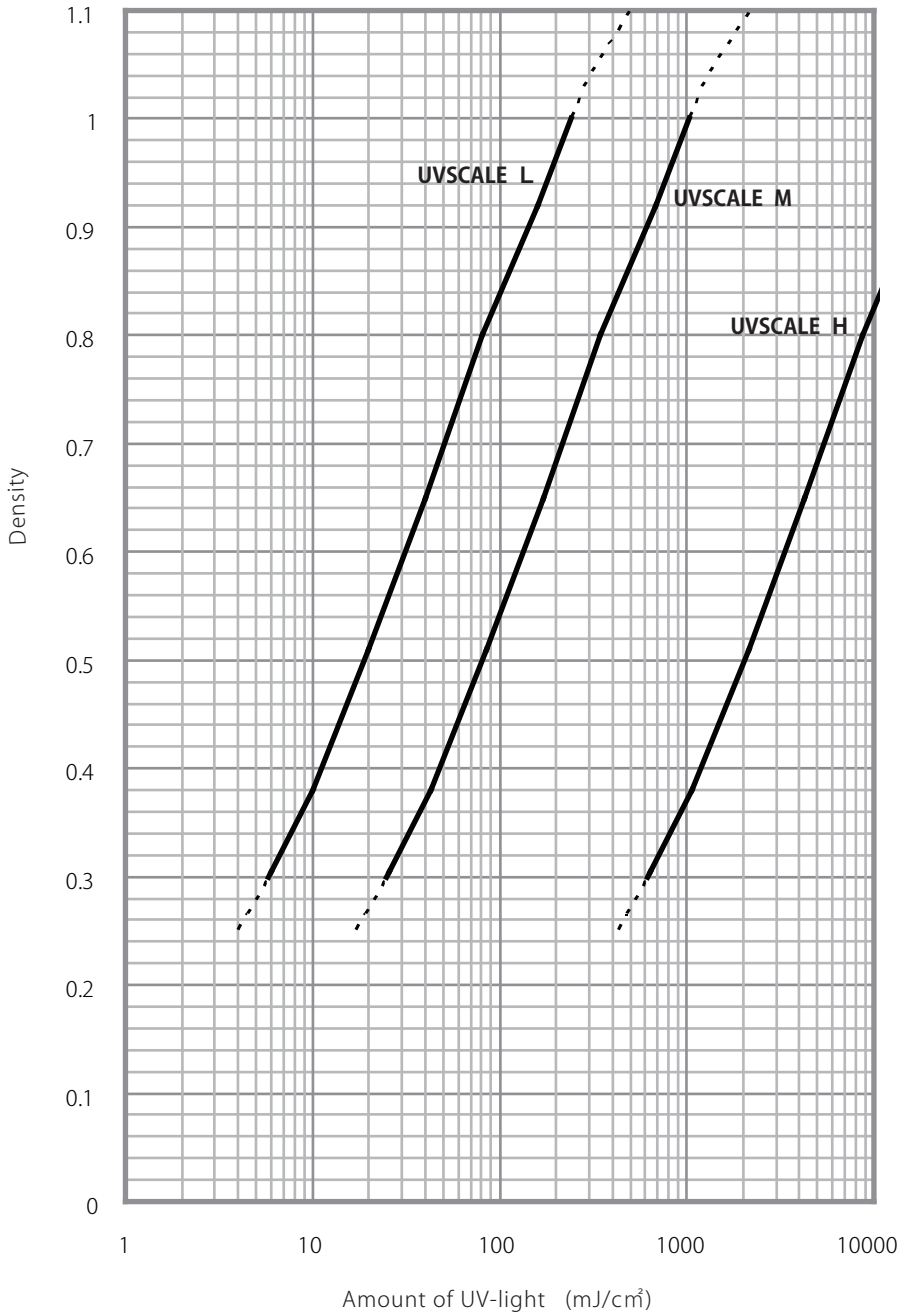
※4 : Standard Color Samples show the density range for visual evaluation.

Standard Color Chart

--- Metal halide lamp ---

The following are color characteristics generated by a metal halide lamp. However, please note that these color characteristics are values generated by using FUJIFILM light sources and devices, so there may be differences in color density for a given amount of light due to differences and variations in individual lamps or environments.





※1 : Each density is the value measured by FUJIFILM. It is not a warranty of density level.

※2 : The amounts of UV-light are values using a 365nm UV illuminometer.

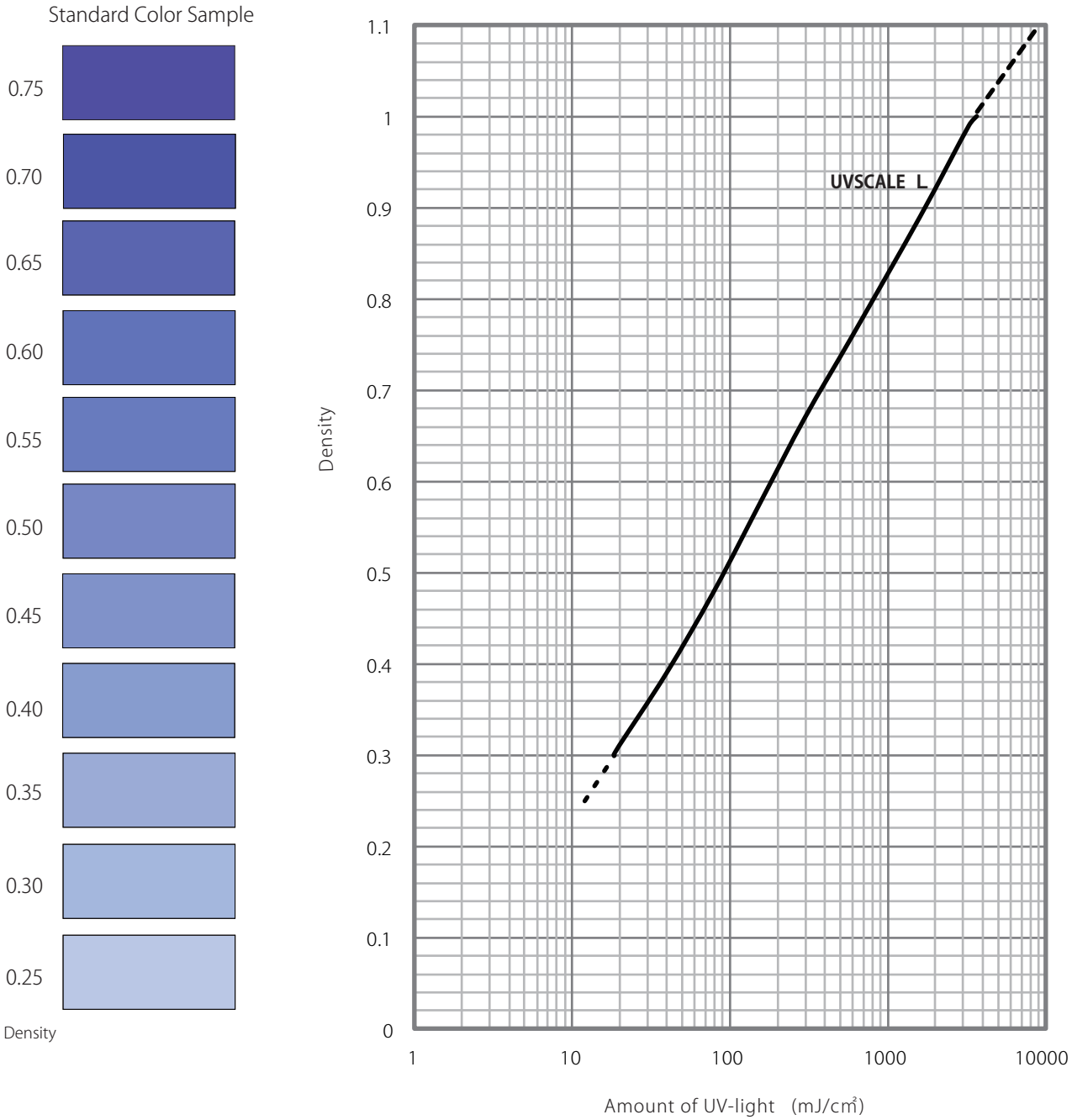
※3 : The solid lines on the graph show the recommended measurement range. The broken lines represent values that are not as precise as the solid lines and should be used as a reference only.

※4 : Standard Color Samples show the density range for visual evaluation.

Standard Color Chart

--- Low-pressure mercury lamp ---

The following are color characteristics generated by a low-pressure mercury lamp. However, please note that these color characteristics are values generated by using FUJIFILM light sources and devices, so there may be differences in color density for a given amount of light due to differences and variations in individual lamps or environments.



※1 : Each density is the value measured by FUJIFILM. It is not a warranty of density level.

※2 : The amounts of UV-light are values using a 254nm UV illuminometer.

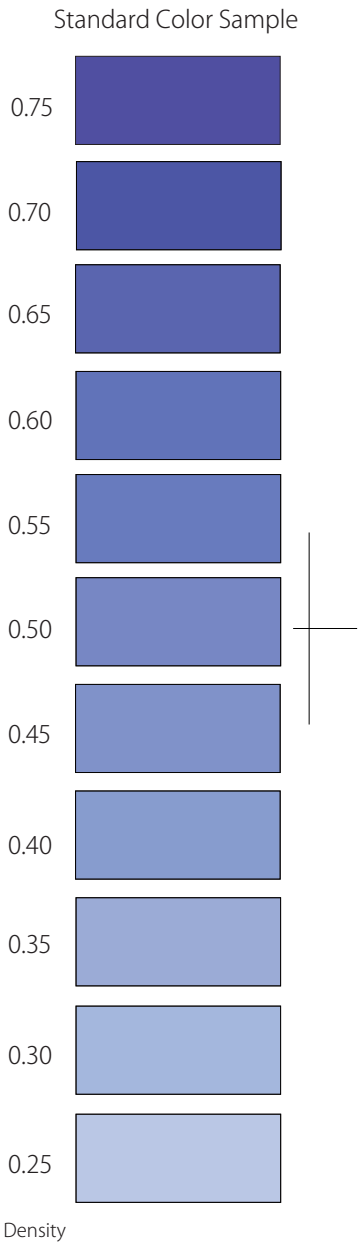
※3 : The solid lines on the graph show the recommended measurement range. The broken lines represent values that are not as precise as the solid lines and should be used as a reference only.

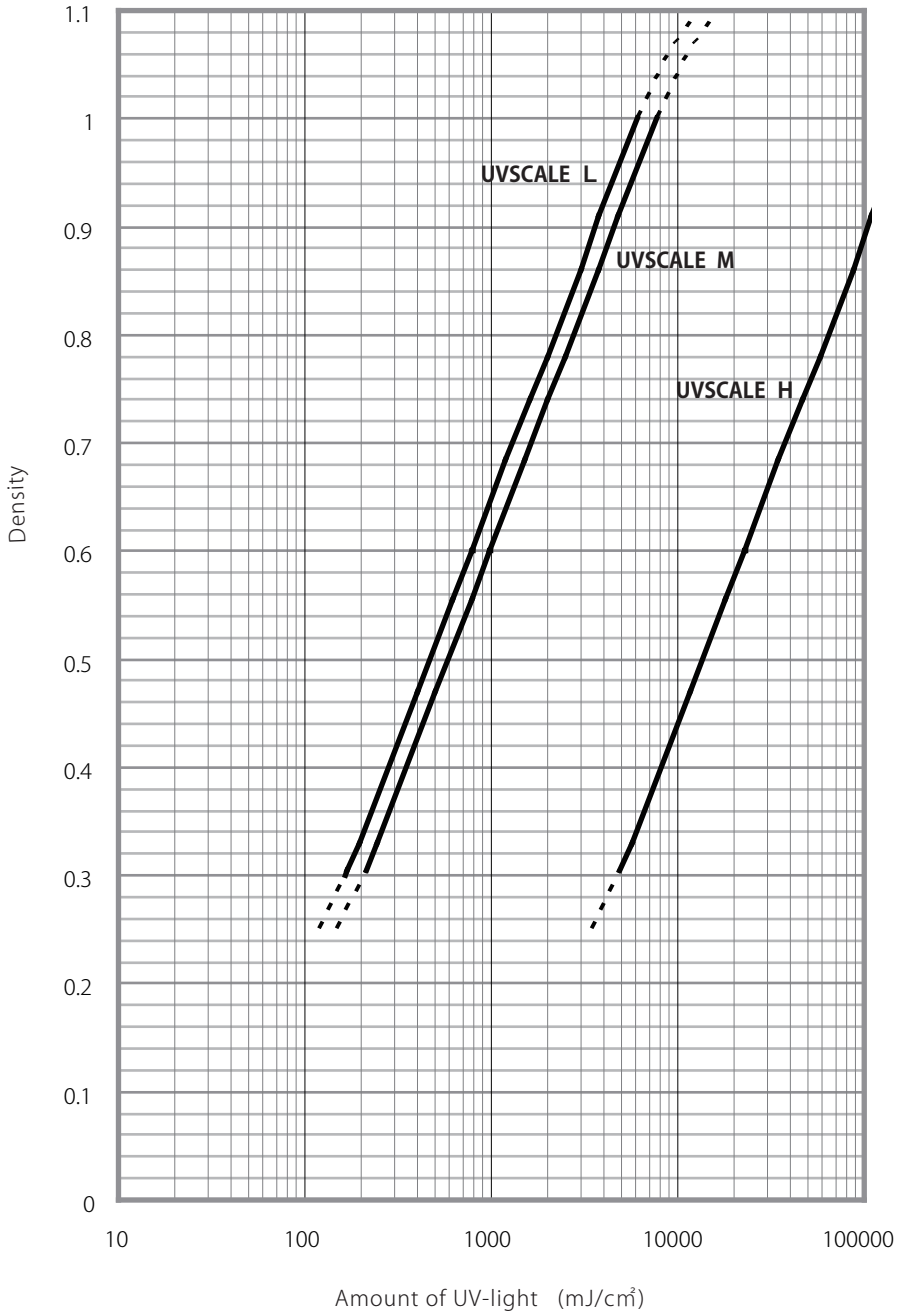
※4 : Standard Color Samples show the density range for visual evaluation.

Standard Color Chart

--- UV-LED (365nm) lamp ---

The following are color characteristics generated by a UV-LED(365nm) lamp. However, please note that these color characteristics are values generated by using FUJIFILM light sources and devices, so there may be differences in color density for a given amount of light due to differences and variations in individual lamps or environments.





※1 : Each density is the value measured by FUJIFILM. It is not a warranty of density level.

※2 : The amounts of UV-light are values using a 365nm UV illuminometer.

※3 : The solid lines on the graph show the recommended measurement range. The broken lines represent values that are not as precise as the solid lines and should be used as a reference only.

※4 : Standard Color Samples show the density range for visual evaluation.