

# Converting Colors

CIELCh(49, 87.277, 35.650)

Have a look what the booklet for  
CIELCh(49, 87.277, 35.650) contains.

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# Color

**CIELCh(49, 87.521, 35.708)**

# Conversions

## Conversions Part 1

<b>Format</b>	<b>Color</b>
Hex	E51D21
RGB	229, 29, 33
RGB Percent	90%, 11%, 13%
CMY	0.1028, 0.8875, 0.8712
CMYK	0.00, 0.87, 0.86, 0.10
HSL	359°, 79%, 50%
HSV	359°, 87%, 90%
XYZ	32.9488, 17.5941, 3.0873
YIQ	89.2560, 117.9160, 43.6440

# Conversions

## Conversions Part 2

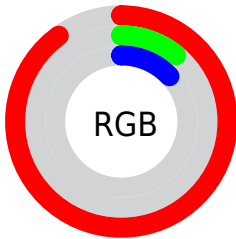
<b>Format</b>	<b>Color</b>
<b>R<sub>YB</sub></b>	229, 29, 33
Decimal	15015201
CIE Lab	49.00, 71.07, 51.08
CIE LCh	49, 87.521, 35.708
Yxy	17.5941, 0.6144, 0.3281
Android (android.graphics.Color)	4293205281 (0xFFE51D21)
YUV	89.2560, -27.7342, 122.5555
Hunter-Lab	41.9453, 66.8107, 24.9978

# Details

The CIELCh color **49, 87.521, 35.708** is a dark color, and the websafe version is hex **FF3333**. The color can be described as dark washed red. A complement of this color would be **83, 45.872, 193.594**, and the grayscale version is **38, 0.005, 296.813**.

A 20% lighter version of the original color is **62, 71.448, 35.938**, and **34, 74.931, 39.792** is the 20% darker color. If you saturate the color by 10%, you get **48, 94.217, 38.811**, and if you desaturate by 10%, it is **51, 78.234, 31.906**.

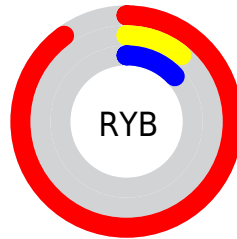
# Distribution



Red (90%)

Green (11%)

Blue (13%)



Red (90%)

Yellow (11%)

Blue (13%)

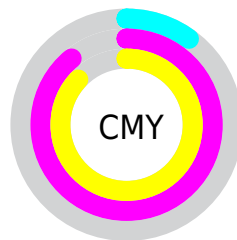


Cyan (0%)

Magenta (87%)

Yellow (86%)

Black (10%)



Cyan (10%)

Magenta (89%)

Yellow (87%)

# Brightness & Saturation Gradients

These gradients show how the CIELCh color 49, 87.521, 35.708 changes by changing the brightness by 10 percent. The first figure shows a shift by +10% for each color and the second figure -10%.

Similar to the brightness gradients but the following saturation gradients show a change of the CIELCh color 49, 87.521, 35.708 by changing the saturation by 10% instead.



 49, 87.521, 35.708

 49, 87.521, 35.708

 100, 87.521,  
35.708

 39, 87.521, 35.708

 69, 87.521, 35.708

 29, 87.521, 35.708

 79, 87.521, 35.708

 19, 87.521, 35.708

 89, 87.521, 35.708

 9, 87.521, 35.708

 99, 87.521, 35.708

 0, 87.521, 35.708

 49, 87.521, 35.708

 49, 87.521, 35.708

 48, 94.217, 38.811

 51, 78.234, 31.906

 48, 95.479, 39.345

 54, 67.790, 28.380

■ 58, 56.850, 25.463

■ 63, 45.844, 23.168

■ 68, 35.103, 21.395

■ 74, 24.855, 20.027

■ 80, 15.227, 18.959

■ 86, 6.264, 18.079

■ 92, 2.047, 197.822

# Harmonies

# Complementary

The Complementary color scheme is a pair of colors which are on the opposite of each other on the color wheel.



49, 87.521, 35.708



83, 45.872, 193.594

# Rectangle

The Rectangle color scheme consists of four colors that form a rectangle on the color wheel.



49, 87.521, 35.708



49, 87.521, 85.708



49, 87.521, 215.708



49, 87.521, 265.708

# Sweetspot

The Sweet Spot groups the original color and five complimentary colors.



49, 87.518, 35.710



83, 25.573, 19.872



54, 103.508, 326.935



42, 17.555, 20.295



0, 0.000, 0.000



53, 0.007, 296.813



# Same Dimension

The Same Dimension uses a secret algorithm to generate beautiful new colors.



49, 87.518, 35.710



53, 103.756, 39.428



62, 72.745, 60.511



45, 4.815, 18.249



37, 79.056, 39.115



6, 27.035, 20.902





# Inverse Universe

The Inverse Universe completely reimagines the original color for something new.



49, 87.518, 35.710



53, 103.756, 39.428



55, 55.478, 275.384



45, 4.815, 18.249



37, 79.056, 39.115



6, 27.035, 20.902



# Previews

## White Background



This preview shows how the CIELCh color 49, 87.521, 35.708 looks on a white background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA ✓ Pass

Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA × Fail

# Black Background



This preview shows how the CIELCh color 49, 87.521, 35.708 looks on a black background.

## Color Contrast Check

Large Text (above 18pt) WCAG AA ✓ Pass

Any Text WCAG AA ✓ Pass

Large Text (above 18pt) WCAG AAA ✓ Pass

Any Text WCAG AAA × Fail

If you want to check with other color combinations, try the [Color Contrast Checker](#).

# CIELCh 49, 87.521, 35.708

## Background



This preview shows how black text looks on a background with the CIELCh color 49, 87.521, 35.708.



This preview shows how white text looks on a background with the CIELCh color 49, 87.521, 35.708.

# Color Blindness Simulation

Color vision deficiency is a very complex topic, and I could not describe the different causes any better than Wikipedia does, so if you want to learn more, you should check out their [article about color blindness](#).

## Dichromacy



### Original Color

49, 87.521, 35.708

### Protanopia

49, 37.075, 96.435

### Deuteranopia

49, 55.957, 83.807



**Tritanopia**  
49, 89.414, 37.697



# Trichromacy



**Original Color**  
49, 87.521, 35.708

**Protanomaly**  
46, 47.699, 51.483

**Deuteranomaly**  
46, 63.584, 55.777

**Tritanomaly**  
49, 88.681, 37.028

# Monochromacy



**Original Color**  
49, 87.521, 35.708

**Achromatopsia**  
38, 0.005, 296.813

**Achromatomaly**  
38, 33.942, 23.287

# CSS Examples

## Text

The CSS property to change the color of the text to CIELCh 49, 87.521, 35.708 is called "color". The color property can be set on classes, ids or directly on the HTML element.

This example shows how text in the color `rgb(229, 29, 33)` looks like.

```
.text, #text, p{  
    color:rgb(229, 29, 33)  
}
```

If you want to add a text shadow in that color use the text-shadow property, you can generate a text shadow directly with our [CSS Text Shadow Generator](#).

Here you see how black text with a 4 pixel rgb(229, 29, 33) colored shadow looks like.

```
.shadow{ text-shadow: 4px 4px 2px rgb(229, 29, 33) }
```

## Border

The CSS property to change the border of an element to CIELCh 49, 87.521, 35.708 is called "border". The border property can be set on classes, ids or directly on the HTML element.

This example shows the color as border, it can be applied via the CSS property "border" or "border-color".

```
.border, #border, table{ border:4px solid rgb(229, 29, 33) }
```

If only the border color should be changed use the property border-color.

```
.border{ border-color:rgb(229, 29, 33) }
```

If you want to add a box shadow in that color use:

Here you see how a box with a 4 pixel rgb(229, 29, 33) colored shadow looks like.

```
.boxshadow{ -moz-box-shadow:4px 4px 4px  
4px rgb(229, 29, 33); -webkit-box-  
shadow:4px 4px 4px 4px rgb(229, 29, 33);  
box-shadow:4px 4px 4px 4px rgb(229, 29,  
33) }
```

# Background

The CSS property to change the background color of an element to CIELCh 49, 87.521, 35.708 is called "background". The background property can be set on classes, ids or directly on the HTML element.

```
.background, #background, body{  
background: rgb(229, 29, 33) }
```

If only the background color should be changed can be used:

```
.background{ background-color: rgb(229, 29,  
33) }
```

This example shows the color as background, it is applied via the CSS property "background".

To optimize and compress your CSS code, you can use our [online CSS compressor and optimizer](#) based on csstidy. If you want to create a linear or radial gradient as background or border, check our [CSS Gradient Generator](#).

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