CONRAC

SUNLIGHT READABLE

SUNLIGHT READABLE DISPLAYS

for outdoor information and digital signage

cTEC
CONRAC Technology
Makes your display last longer.

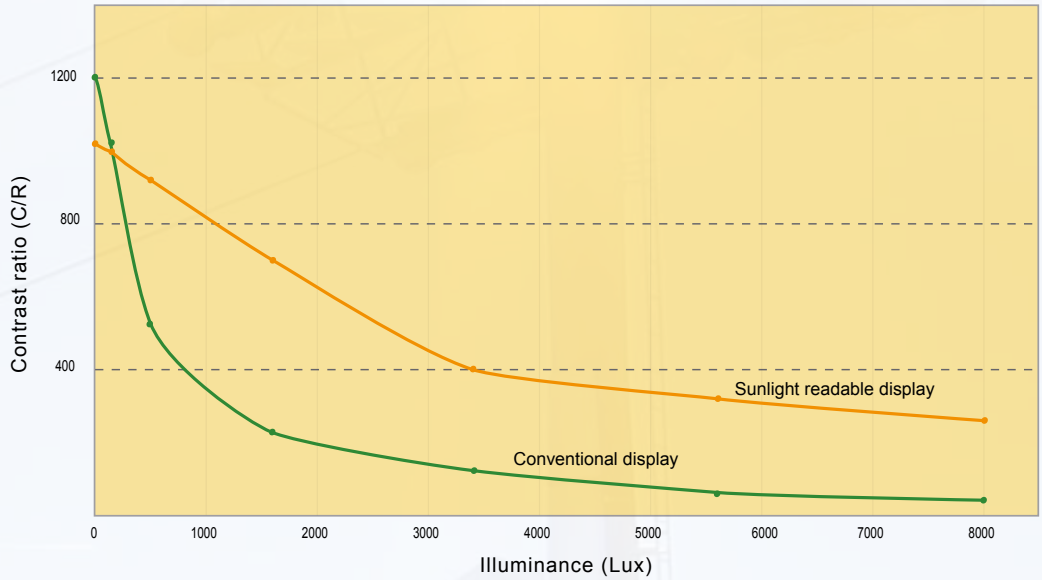
Innovation. Experience. Flexibility. Quality.

Sunlight Readable Displays
SUNLIGHT READABLE DISPLAYS

Technology

Sunlight Readable Displays – the new generation of industrial displays allows optimal image visualisation in bright ambient light environments.

A special plastic film in front and behind the LCD panel guarantees an optimal contrast ratio and excellent images.



SUNLIHGT READABLE

Conventional display
(Standard backlight brightness 500nit)

Surface reflectance:	1.5% - 4.0%
Color gammut @ 4K Lux:	68%
Contrast ratio @ 4K Lux:	80:1

Conventional display
(High backlight brightness 1500nit)

Surface reflectance:	1.5% - 4.0%
Color gammut @ 4K Lux:	50%
Contrast ratio @ 4K Lux:	200:1

Sunlight Readable Display

Surface reflectance:	0.5% - 1.5%
Color gammut @ 4K & 100K Lux:	71%
Contrast ratio @ 4K Lux:	400:1
Contrast ratio @ 100K Lux:	≈ 15:1 (panel only)

Benefits

- Readable under all lighting conditions
- Optimal contrast ratio for both indoor and outdoor conditions
- Utmost colour saturation and viewing angle even in high brightness environment
- No extra heat generation even at a higher brightness
- Full mechanical and electrical compliance with the existent system
- High durability through optimised energy balance

Comparison

Sunlight Readable / High Brightness Displays

High Brightness Displays are usually equipped with very strong backlights. The luminosity is between 1500cd/m2 and 2000 cd/m2. Due to the high power dissipation, this method leads to a high heat generation und consequently a shorter display lifetime. Moreover, strong backlight brightness results in a lower colour saturation (colour gamut). However, the contrast ratio which is crucial for the readability does not increase.

Technology	Panel temperature	Inverter	Colour performance	Improved contrast ratio
High Brightness	**High power dissipation and therefore heat generation**	**Need to change to higher inverter**	**Colour saturation (colour gamut) decreases**	**No**
Sunlight Readable	**No change**	**Original**	**Constant colour saturation (colour gamut)**	**Yes**

Applications

The application range of the Sunlight Readable Displays is numerous - indoor as well as outdoor applications are possible. The operation in bright ambient light environments is generally useful.

Sunlight Readable Displays can therefore be used in show windows, kiosks, train stations or any other point-of-sale or point-of-interest.

Twycross Zoo / Great Britain

Train station Saint Lazare / France

CONRAC

Developed / Designed / Made in Germany

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Green approach. We care.

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