LEDs-ON®

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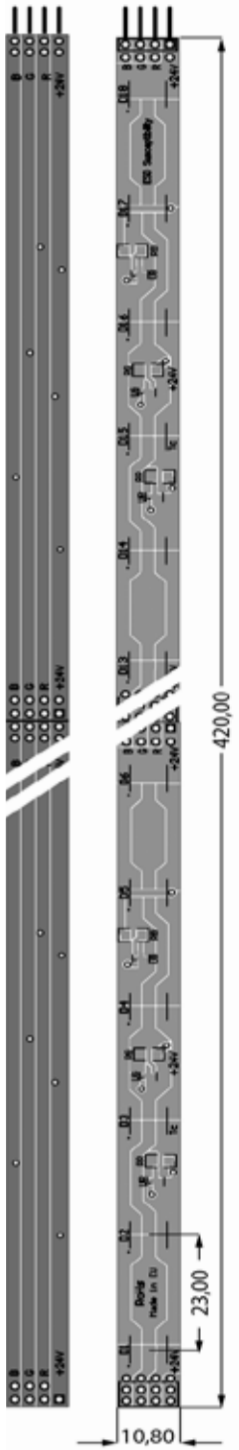
# LED STRIPES PRODUCTS CATALOGUE 2011

Pages 2-29 data sheets
Page 30 contact details

NEW

# RGB LED STRIPE WITH CONSTANT CURRENT LED STABILITY

24V DC / 420mm / 18 leds / Flexible / 3 modules / 23mm spacing between leds / each led is current control




DESCRIPTION :

RGB led stripe with constant current supplying LED drivers is designed to provide a precise constant current supply to the LEDs from varying input voltage.

The main target is to replace discrete components solution for driving LEDs in low voltage applications such as 12V or 24V and giving benefits in terms of precision, integration and high reliability.

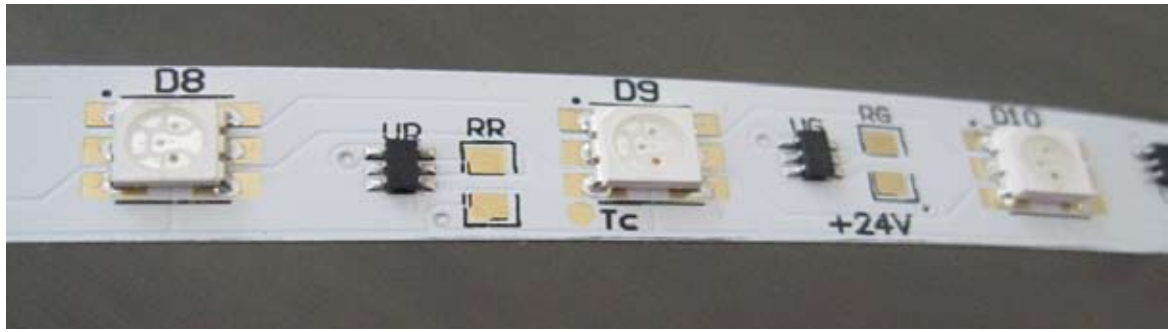
LEDs driven by LED drivers provides stable bias current control, independent of the suppling voltage variation.

Low voltage drop of 0,75V over the led driver maximizes system DC efficiency which for this stripe reach up to 80%
Total power dissipation of this new RGB LED stripe in this configuration is 6W when all RGB colors are on.
The LED drivers has negative temperature coefficient which protects LEDs against thermal current runway.

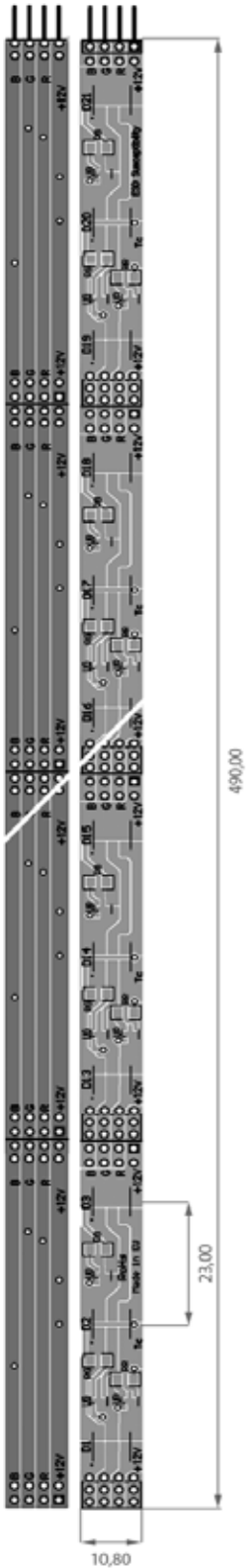
Lifetime of the leds will be significantly extended due better protection and operating condition.

FEATURES :

Efficiency up to 80%
LEDs bias current protection,
Negative temperature coefficient, protects LED against thermal overload
Constant current supply to each LED
Even brightness of the LEDs even in lower voltage supply
Total power consumption of the RGB24V-5060 is 6W
Brightness of single led stripe R/G/B (10/35/10 lm)
Operating voltage 24V DC
Flexible PCB with two layers design, immersion gold finish
Lifetime depends of operation condition, up to 50 000 h
Smallest unit of 6 LEDs can be cut out at regular intervals without damaging the rest of the stripe
Easy mounting on adhesive tape on isolated backside
Easy connection by pins and connectors

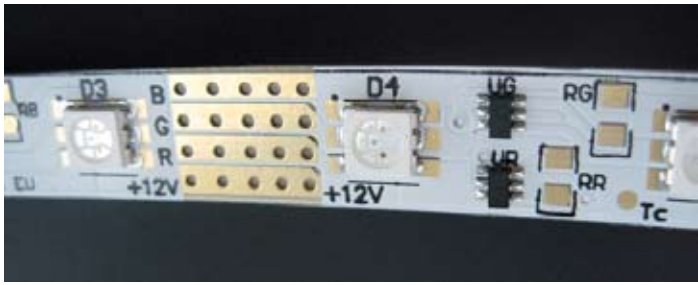


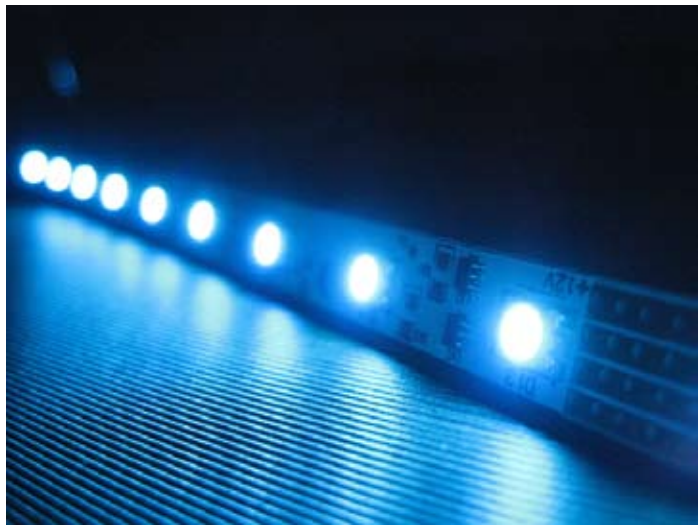

NEW




# RGB LED STRIPE WITH CONSTANT CURRENT LED STABILITY

12V DC / 490mm / 21 leds / Flexible / 7 modules / 23mm spacing between leds / each led is current control



DESCRIPTION :

RGB led stripe with constant current supplying LED drivers is designed to provide a precise constant current supply to the LEDs from varying input voltage.

The main target is to replace discrete components solution for driving LEDs in low voltage applications such as 12V or 24V and giving benefits in terms of precision, integration and high reliability.

LEDs driven by LED drivers provides stable bias current control, independent of the suppling voltage variation.

Low voltage drop of 0,75V over the led driver maximizes system DC efficiency which for this stripe reach up to 80%
Total power dissipation of this new RGB LED stripe in this configuration is 7W when all RGB colors are on.
The LED drivers has negative temperature coefficient which protects LEDs against thermal current runway.

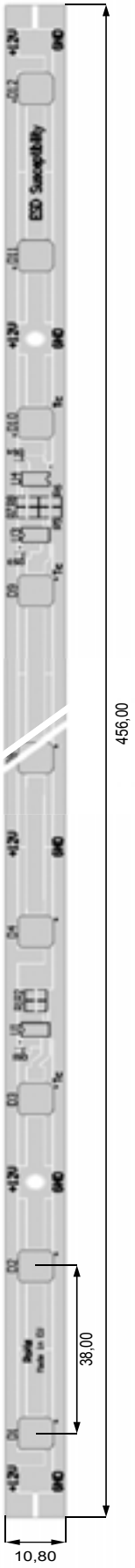
Lifetime of the leds will be significantly extended due better protection and operating condition.

FEATURES :

Efficiency up to 80%
LEDs bias current protection,
Negative temperature coefficient, protects LED against thermal overload
Constant current supply to each LED
Even brightness of the LEDs even in lower voltage supply
Total power consumption of the RGB24V-5060 is 6W
Brightness of single led stripe R/G/B (10/35/10 lm)
Operating voltage 12V DC
Flexible PCB with two layers design, immersion gold finish
Lifetime depends of operation condition, up to 50 000 h
Smallest unit of 6 LEDs can be cut out at regular intervals without damaging the rest of the stripe
Easy mounting on adhesive tape on isolated backside
Easy connection by pins and connectors

NEW

# 12W/12V High Power LED bar with BiCMOS current control




FEATURES:

12W/12V high power LED bar

Constant voltage supplying LED stripe with
the constant current control of the LEDs bias
Luminous intensity 900-1100 lm in white

High efficiency, up to 85% due high integration
and low voltage drop overhead (less then 0,5V)

High reliability, good brand name BiCMOS LED driver
Over temperature LED protection, shut down at 155°C
Tc point to measure LED core operating temperature
High quality aluminum (2,5mm ) PCB with
immersion Gold finish

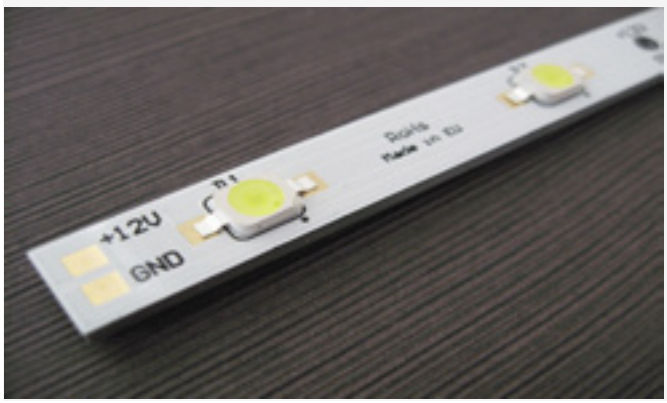
Available in all colors (R,G,B,W,WW)
CIE LED color selection possible (option)

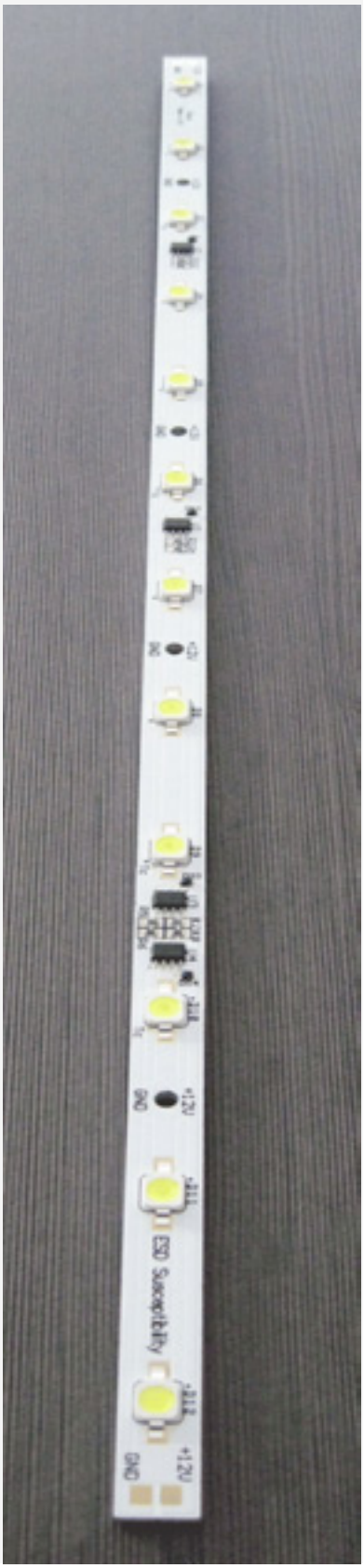
Compatible with Osram Dragon Fly LEDs
or Osram Platinum Dragon Fly LEDs (350mA)
exchange for Osram LEDs possible (option)

APPLICATIONS:

Ceiling lighting with the recessed LED profiles
Back stage lighting
Main office lighting
Fluorescent tubes replacement

Led bar can be recessed into existing
light fixtures as the replacement of high energy
demand fluorescent tubes at the offices,
car garages, schools, shopping malls etc.




LED stripes

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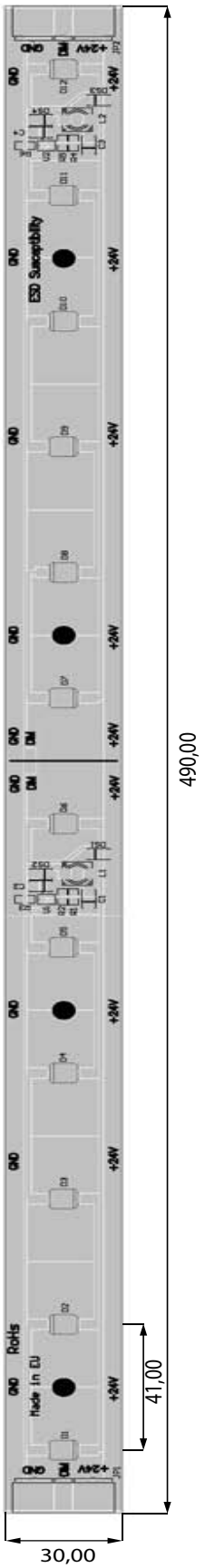
NEW

# 12W/24V High Power LED Bar with current control PWM DIM. and IPS




FEATURES:

12W/24V high power LED bar
Luminous intensity 900-1100 lm in white
Constant voltage LED bar with constant current control of the LEDs
Impulse power supply to the LEDs
PWM Dimming 0-100%
High quality aluminum core (2,5mm ) PCB with immersion Gold finish

High efficiency, up to 90%
High reliability
Low operating temperature
Available in all colors

Compatible with Osram Dragon Fly LEDs
or Osram Platinum Dragon Fly LEDs (350mA)

APPLICATIONS:

Ceiling lighting with the recessed LED profiles
Back stage lighting
Main office lighting
Fluorescent tubes replacement

Led bar can be recessed into existing light fixtures as the replacement of high energy demand fluorescent tubes at the offices, car garages, schools, shopping malls etc.



LED stripes

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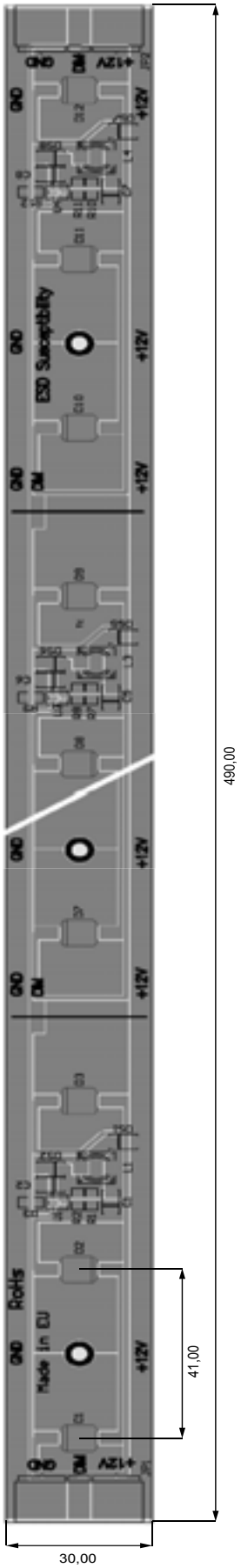


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12W/12V high power LED bar
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APPLICATIONS:

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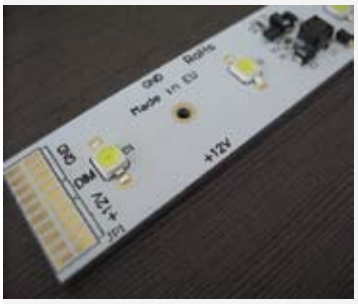
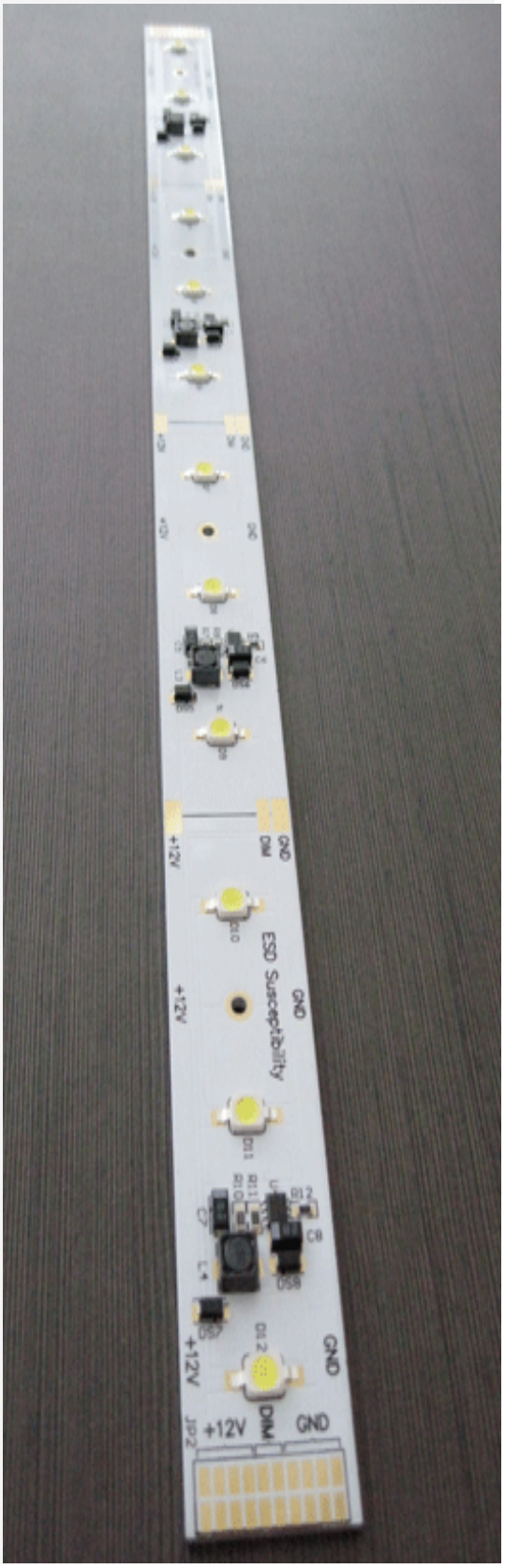
Back stage lighting
Main office lighting
Fluorescent tubes replacement

Led bar can be recessed into existing light fixtures as the replacement of high energy demand fluorescent tubes at the offices, car garages, schools, shopping malls etc.





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# MEGA BRIGHT (1500 mcd) SINGLE LED PCB (white)

5V DC / 0.5m or 0.9m link wire stripe / 95lm stripe (20 leds)

or

# HP MEGA BRIGHT SINGLE LED PCB (white)

5V DC / 0.9m link wire stripe / 20 x 0,5W LEDs / 640lm (20 leds)

PCB parameters

- FR4-1,32mm (7mm x 7mm)
- Distance between LED's 40 mm
- Operating voltage: 5V DC
- Link wire length 0,9m/20 LEDs
- Silicon insulated cooper wires 0,5mm
- Green solder mask
- Product is RoHs compliant
- Available in all LED colors

LEDs parameters

- Type of LEDs : SMD, PLCC-2 housing
- Viewing angle : 120°
- Lifetime of the LEDs: above 50 000 hours.
- RoHs compliant
- Number of LED's soldered on 0,9m long link wire : 20 pieces
- Brightness of pure white color 95lm / 640lm (HP) / 900mm (20 leds)
- Operating/storage temperature: -40°C to +85°C

Product is made in Poland by LEDsON

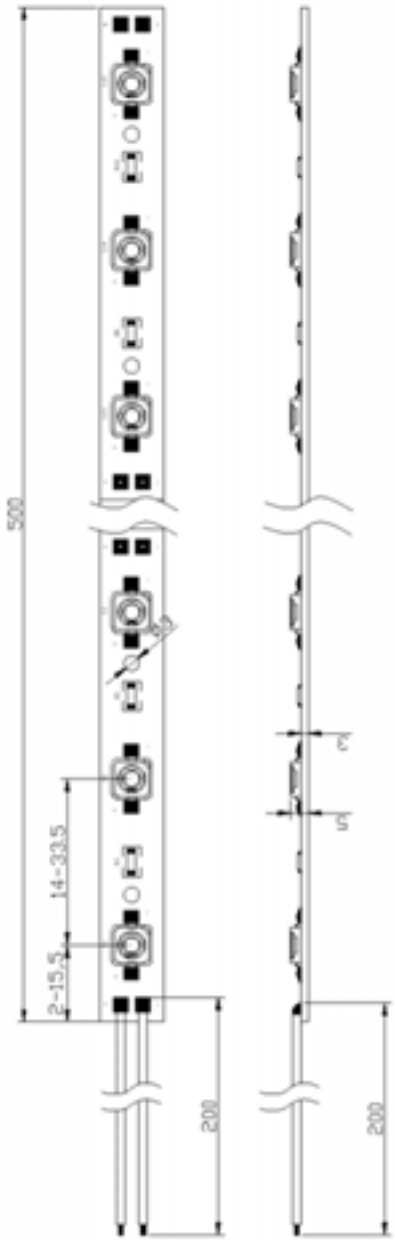
# Main application / attribute of the
# MEGA BRIGHT (95lm)  SINGLE COLOR LED PCB
# HP MEGA BRIGHT (640lm)  SINGLE COLOR LED PCB

- Immersion in the epoxy raisin
- Space limited signs, letters
- Back panel lighting

This type of the LED stripe has a few main attribute as follow:

- You can build waterproof signs, letters or logos by immersing this stripe in the epoxy raisin.
  When the raisin will get hard the sign became waterproof. It is one of the ways to have fully waterproof sign which can be placed outside.

- You have the flexibility of bending the stripe in all possible ways.
- We have use high quality silicon insulated copper wires 0,5 mm
- Each LED dot is supplied in power independently (parallel connected), no drop-off the brightness and more secure connection.
- The distance between LED dots can be modified (reduced/ increased) for customer special request.
- Specially selected LEDs with highest brightness output has been use during production of this LED stripes
- The color chromaticity of white LEDs for customer request can be custom selected from 2500'K to 25000'K
- 5V DC operating voltage increased the energy efficient of that stripe.
- Excellent duet with the waterproof (IP66) 5V DC electronic LED drivers




# 7,5W HIGH POWER SINGLE COLOR LED BAR -12V DC

15 LEDs * 0,5W each, up to 35lm/W, 500x10x3mm

PCB parameters :

- Aluminum metal core board 10x500x3mm
- 15 HP LEDs soldered on 500mm board
- 7,5W power consumption
- Distance between LEDs : 33,5mm
- Operating voltage : 12V DC
- LED forward current 150mA
- Operating temperature : -40°C +80°C
- Clean look white solder mask
- Additional heat sink required
- HTC paste for installation is recommended
- Product RoHs compliant

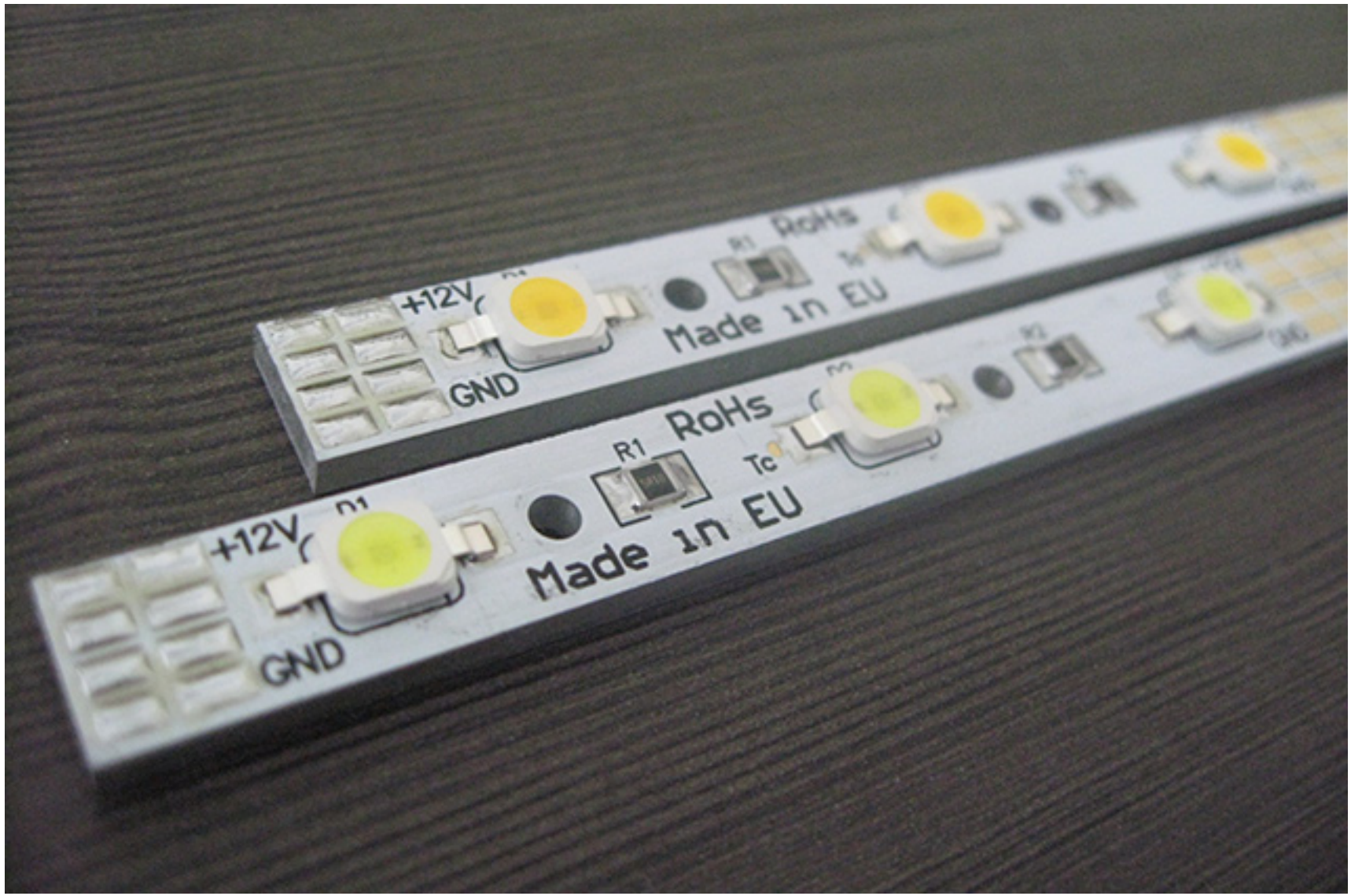
LED parameters :

- SMD HP leds 0,5W each, up to 35lm/W
- 120° Degree LED viewing angle
- up to 520 (Lm) lumens light output intensity for pure white bar
- 5500-6500'K factory standard of pure white color
- 3000-3200'K factory standard of warm white color
- LED BIN selection during LED assembling
- LED factory special BIN selection possible

Product made in Poland by LEDsON

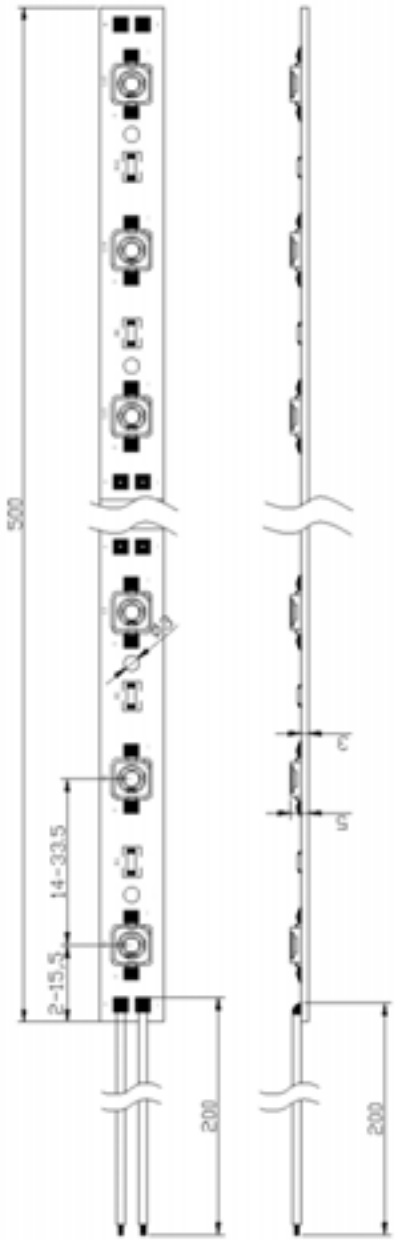
# 7,5W HIGH POWER SINGLE COLOR LED BAR -12V DC

15 LEDs * 0,5W each = 520 lumens (pure white color)



Product application

Ceiling lamp transformed from  4X18W fluorescent lamps into 4x7,5W HP LED bars in pure white
Total power consumption 72W before, now only 30W.




# 15W HIGH POWER SINGLE COLOR LED BAR -12V DC

15 LEDs * 1W each up to 87Lm/W  500X10X3,2mm

PCB parameters :

- Aluminum metal core board 10x500x3,2mm
- 15 HP LEDs soldered on 500mm board
- 15W power consumption
- Distance between LEDs : 33,5mm
- Operating voltage : 12V DC
- LED forward current 350mA
- Operating temperature : -40°C +80°C
- Clean look white solder mask
- Additional heat sink required
- HTC paste for installation is recommended
- Product is RoHs compliant

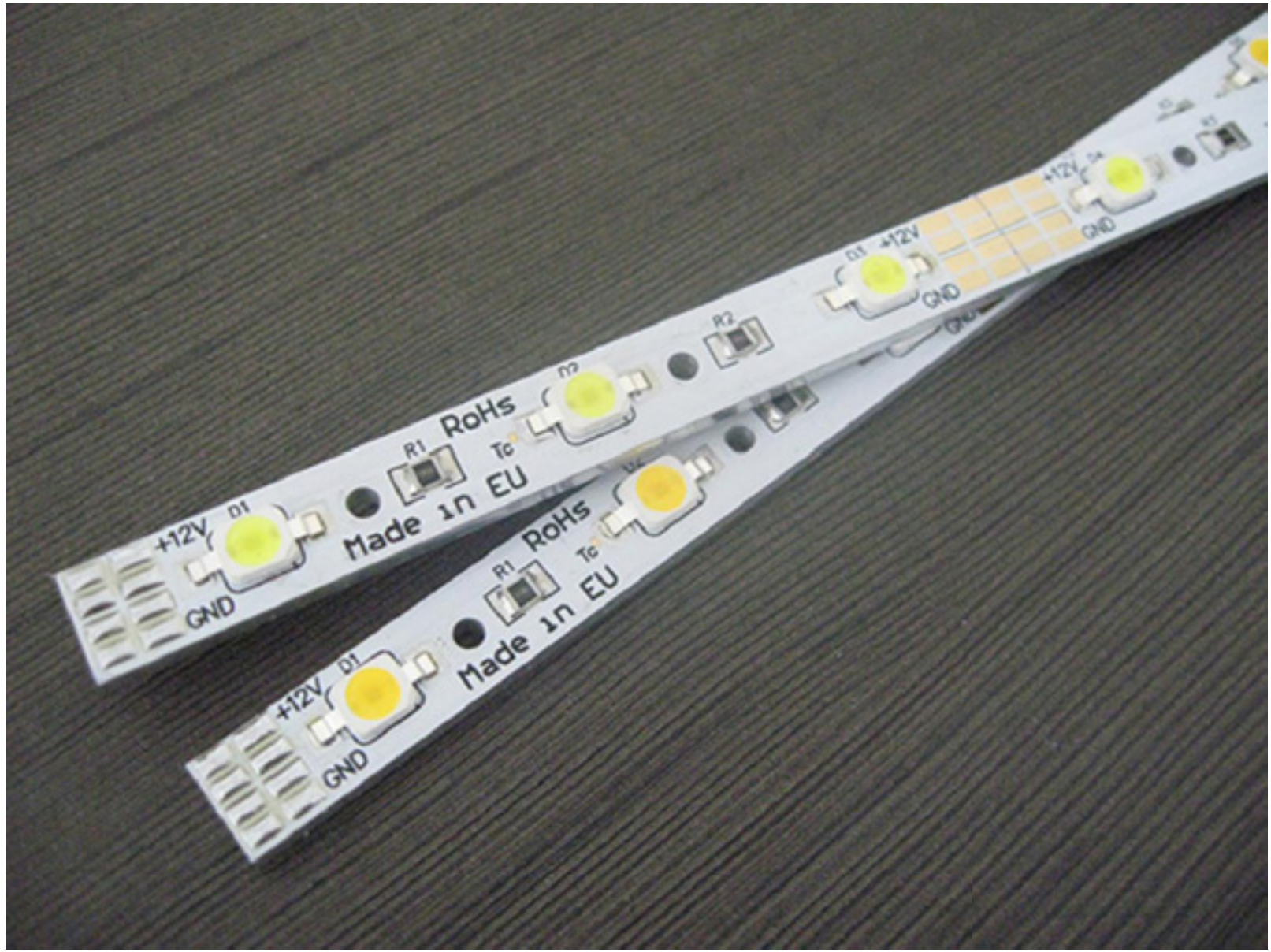
LED parameters :

- SMD HP leds 1W each, up to 87Lm/W
- 100° Degree LED viewing angle
- up to 1200 (Lm) lumens light output intensity for pure white bar
- 6000-7500'K factory standard of pure white color
- 2500-3800'K factory standard of warm white color
- LED BIN selection during LED assembling
- LED factory special color BIN selection possible

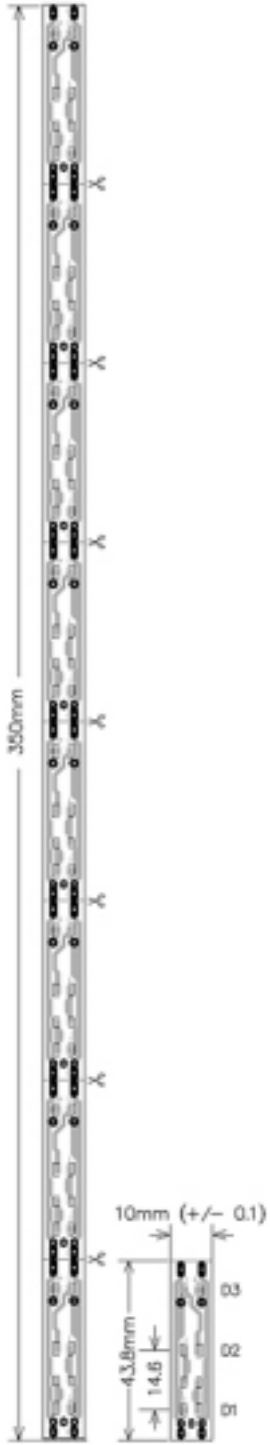
Product made in Poland by LEDsON

# 15W HIGH POWER SINGLE COLOR LED BAR -12V DC

15 LEDs * 1W each = 1300 lumens (pure white color)




Product made in Poland by LEDsON




# LONG 12V EXTRA BRIGHT – FIRM PCB

12V DC / 1500 mcd each LED (white color), 24 LEDs / 8 modules, 350x10x1,6mm

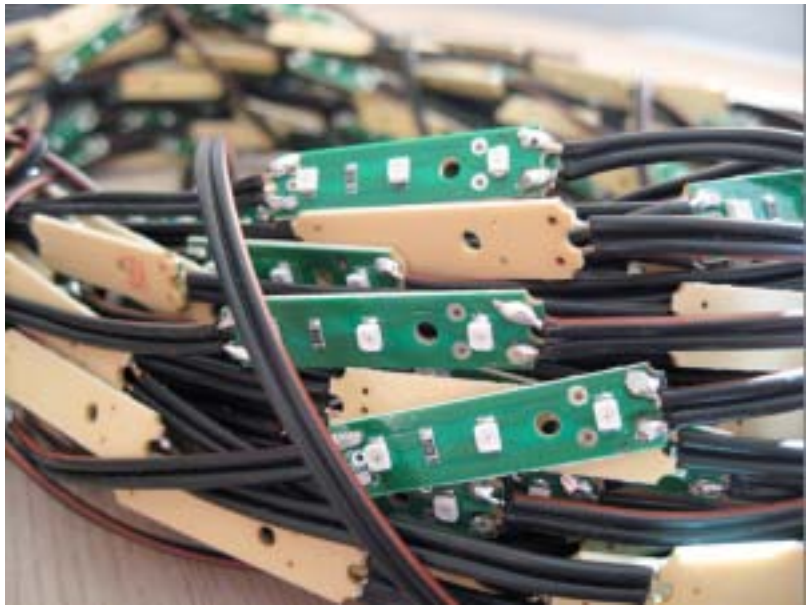
## PCB Parameters

- Firm type PCB : CM-1,6mm
- PCB can be divided for 8 (45mm) modules then connected with the cable
- Operating voltage : 12V DC
- One layers design
- Solder mask : Green
- Connection type options : plugs (male/female), elastic cable between modules
- Surface mounting type : pins, screw, silicon
- RoHs compliant

## LED Parameters

- Type of LEDs : SMD, PLCC-2 housing
- Viewing angle : 120°
- Brightness of the single LED in white color : 1500mcd @ If = 20mA
- Number of LEDs soldered on 350mm PCB : 24 pieces
- Number of modules/possible cutting spaces : 8 modules
- Forward voltage of white color Vf (min/typical) : 3,0/3,2V
- DC forward current If : 20mA
- Operating/storage temperature : -40°C to +80°C
- RoHs compliant

Product made in Poland by LEDsON



Reception front desk illuminated by firm single LED modules
LONG 12V DC EXTRA BRIGHT with cable

# Main application / attribute of the

LONG 12V EXTRA BRIGHT – FIRM PCB MODULES

attributes :

- Economic purchase cost
- Connection of the cable flexibility with solid firm PCB
- Very bright LEDs
- Easy and convenient installation
- Customized distance of cables between modules
- Solid design

applications :

- Architectural accent lighting
- Back lighting
- Space letters
- Signs

Product made in Poland by LEDsON


# 8mm wide 12V EXTRA BRIGHT – FIRM PCB

12V DC / 1500 mcd each LED (white color), 21 LEDs / 7 modules, 275x8x1,3mm

PCB Parameters

- 8mm FIRM type PCB, FR-1,3mm
- PCB length is 275 mm contain 7 modules of 3 LEDs on each
- Distance between LEDs is 12mm
- Adjusting / trimming of the length is possible every three LEDs
- Operating voltage: 12V DC
- One layers design
- Solder mask: Green
- Connection type options: elastic cable
- RoHs compliant

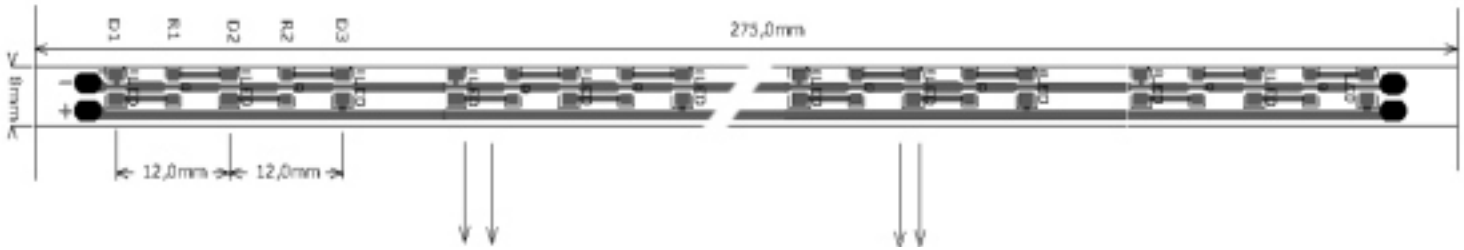
LED Parameters

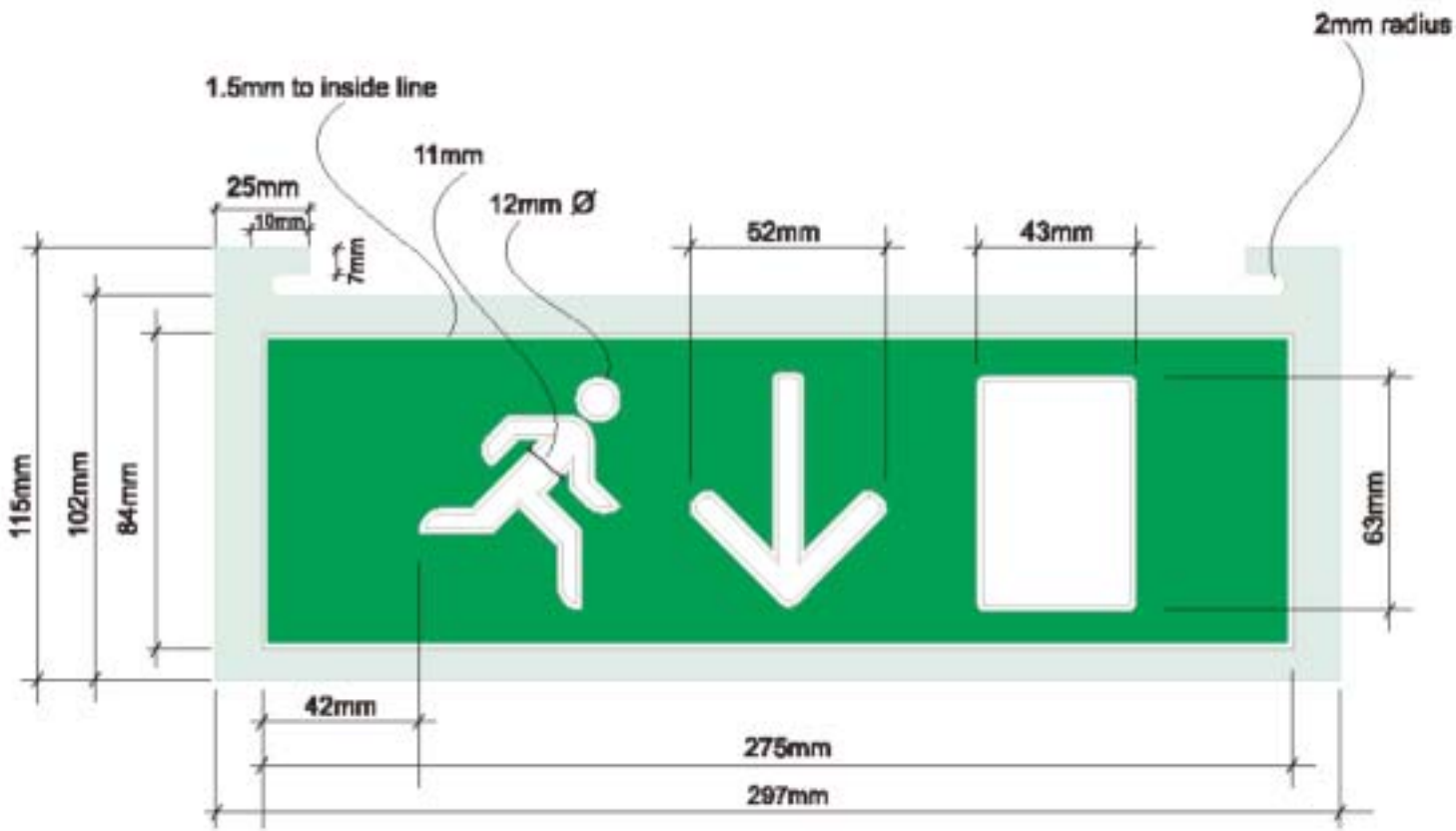
- Type of LEDs : SMD, PLCC-2 housing
- Viewing angle : 120°
- Brightness of the single LED in white color : 1500mcd @ If = 20mA
- Number of LEDs soldered on 275mm PCB : 21 pieces
- Number of possible cutting spaces : 6 pieces
- Forward voltage of white color LED Vf (min/typical) : 3,0/3,2
- DC forward current If : 20mA
- Operating/storage temperature : -40°C to +80°C
- RoHs compliant

Product made in Poland by LEDsON

# Real project application of the

8mm wide (275mm) 12V EXTRA BRIGHT – FIRM PCB

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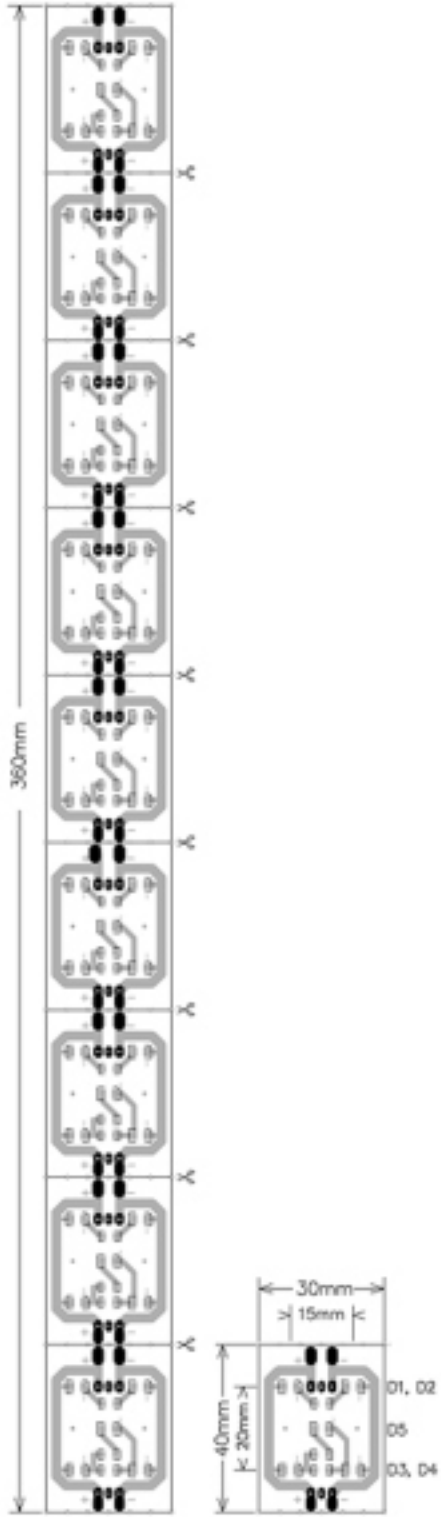



# STAR-5 EXTRA BRIGHT–12V FIRM PCB

12V DC / 1500 mcd single LED (white color), 45 LEDs / 9 modules, 360x40x1,6mm

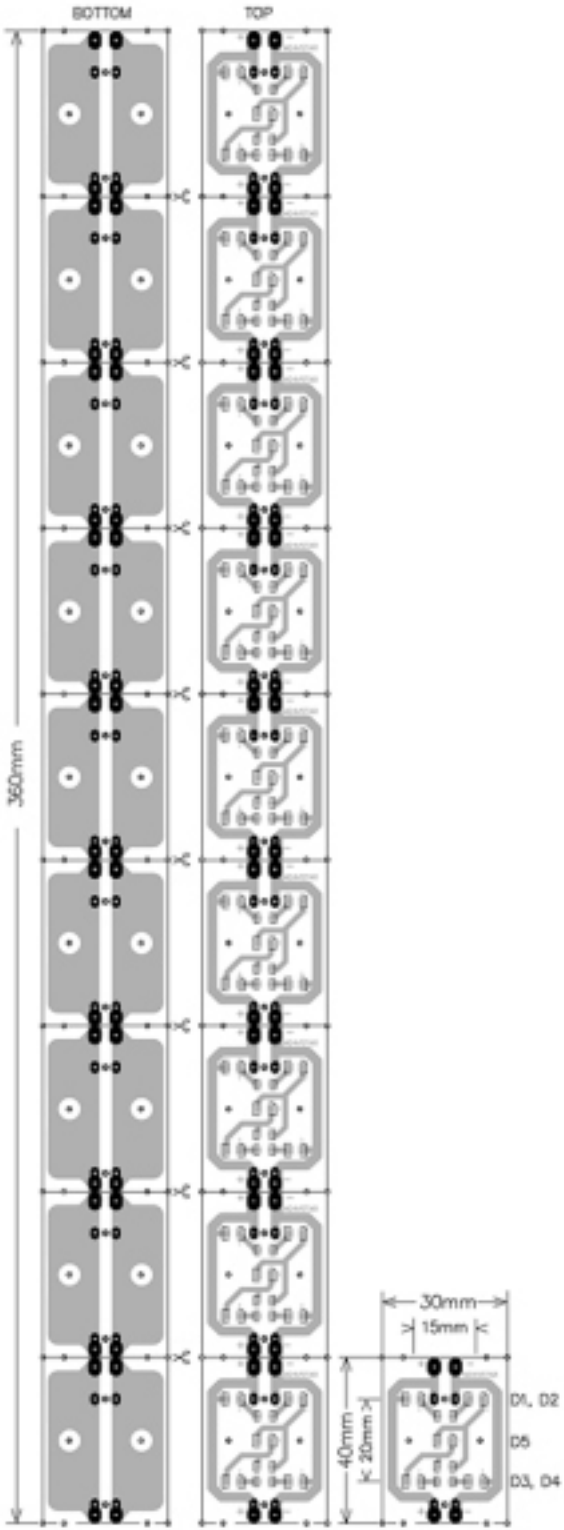
## PCB Parameters

- Firm PCB–type : CM-1,6mm
- PCB can be divided in to 9 single modules (30x40mm) and connected with the cable between
- Operating voltage: 12V DC
- Power consumption of the stripe / single module : 3,15/0.35 W
- Finish of the PCB: Green
- Connection type options: plugs (male/female), elastic cable between modules
- Surface mounting type: Pins, screws
- RoHs compliant

## LED Parameters

- LEDs type: SMD, PLCC-2 housing
- Viewing angle: 120°
- Brightness of the white color: 1500 mcd @ If= 20mA
- Number of leds soldered on 360mm x 40mm PCB: 45 pieces
- Number of modules / possible cutting spaces: 9/8 pieces
- Forward voltage of the white color Vf (min/typical): 3,0/3,2V
- DC forward current If: 20mA
- Operating / storage temperature: -40°C to +80°C
- RoHs compliant

Product made in Poland by LEDsON




# STAR-5 EXTRA HELL–24V FIRM PCB

24V DC / 1500 mcd each LED (white color), 45 LEDs / 9 Modules, 360x40x1,2mm

## PCB Parameter

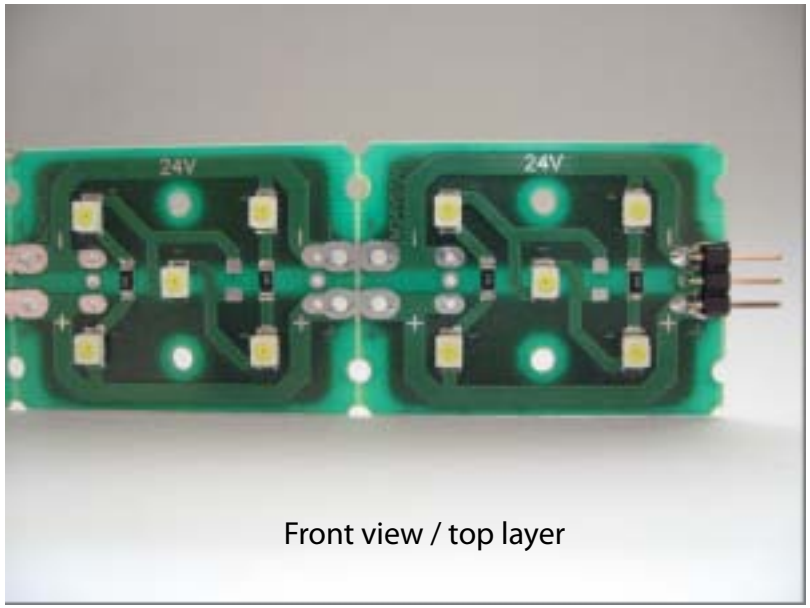
- Firm PCB-Typ: FR-1,2mm
- Two layer design
- Long line connections allowed
- PCB can be divided in to 9 single modules (30x40mm) and connected with the elastic cable between
- Operating voltage: 24V DC
- Power consumption of the stripe / single module : 3,15W/0,35W
- Finish of the PCB: Green
- Connection type options: plugs (male/female), elastic cable between modules
- Surface mounting type: Pins, screws
- RoHs compliant

## LED Parameters

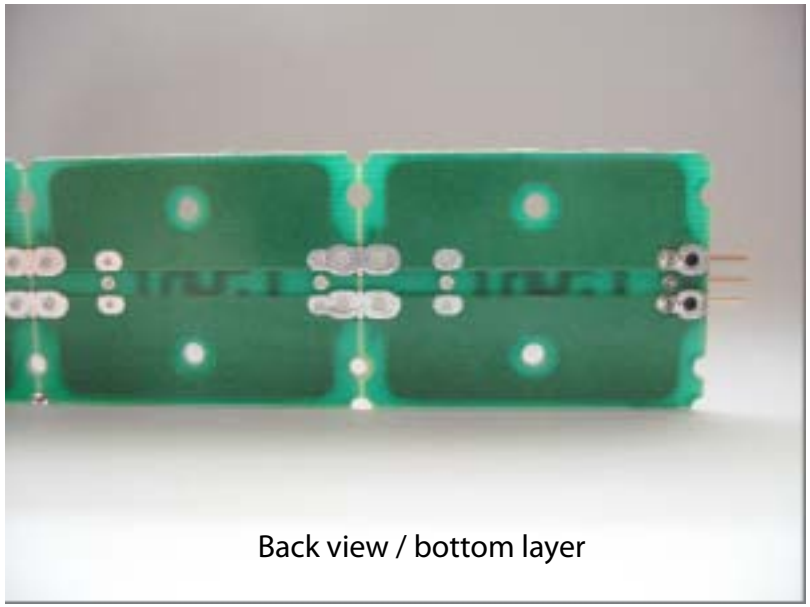
- LEDs type: SMD, PLCC-2 housing
- Viewing angle: 120°
- Brightness of the white color: 1500 mcd @ If= 20mA
- Number of LEDs soldered on 360mm x 40mm PCB: 45 pieces
- Number of modules / possible cutting spaces: 9 modules
- Forward voltage of the white color LEDs Vf (min/typical): 3,0/3,2V
- DC forward current If: 20mA
- Operating / storage temperature: -40°C to +80°C
- RoHs compliant

Product made in Poland by LEDsON

# **Attributes / Applications of**
# STAR-5 EXTRA BRIGHT – 24V FIRM PCB MODULES



Front view / top layer


Back view / bottom layer

Attributes :

• 24V with two layers PCB was designed for better current handling and longer line connections. The main current is flowing the way where the resistance is lower in this case thru the bottom layer. The LEDs are not stressed by high current flowing thru them like it is in the one layer design. LEDs are connected with the bottom layer by the metallization wholes to take power as much they need only.

• 24V volts brings also some benefits as twice lower current (in compare to 12V), less heat will be produced and longer lines of modules can be powered now from the single power supplier.

• Concentrated light output of those 5-SMD LEDs make this design more attractive everywhere where the strong light is needed.

• High quality PCB martial – FR4 1,2mm has been used for that design where modules has increased thickness of cooper wires for lower resistance and better cooling features

• LOW power dissipation - 114mW for each LED only make it even more energy efficient
• Wide range of white color LED selection from 2500-25000'K is possible (option)
• Long operating life time extending 50 000 hours

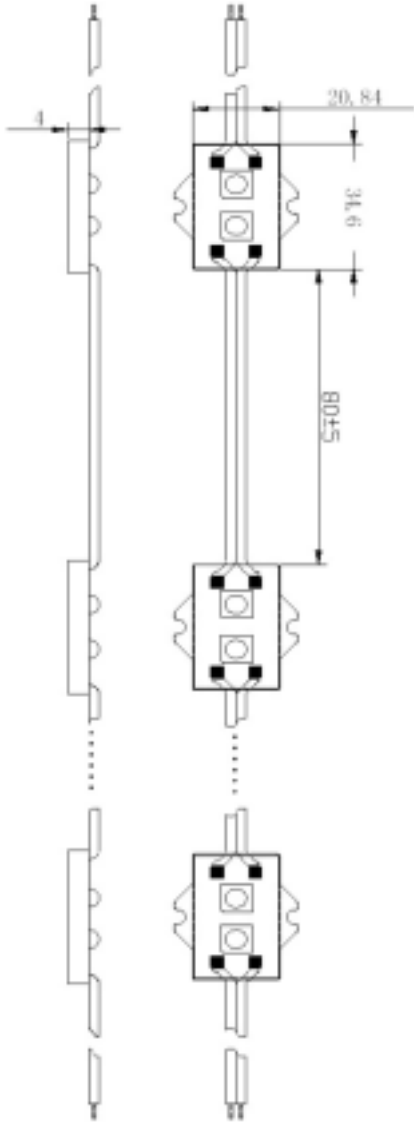
Applications :

- Signs, 3D letters, back panel lighting.
  Usually in that application the long PCB stripe is divided for single LED modules then connected with elastic cable between them. The LED modules chain then is placed in the sign or 3D letter and power from the LED power supplier which deliver 24V DC
  The cable distance between modules can be customized but optimal distance is 7cm.

- Cabinets lighting, architectural accent lighting

# Waterproof LED-modules IP67 - C20, C40 and C90 – 12V (white)

2-LEDs, 4-LEDs, 9-LEDs / 12V DC

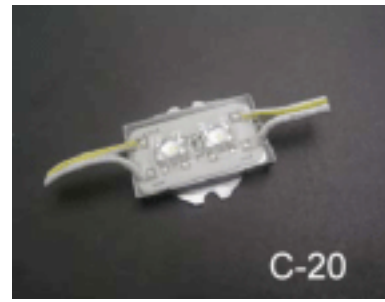


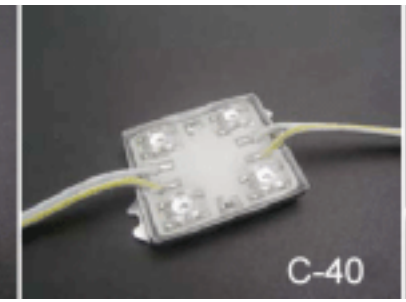

LED MODUL-PARAMETERS

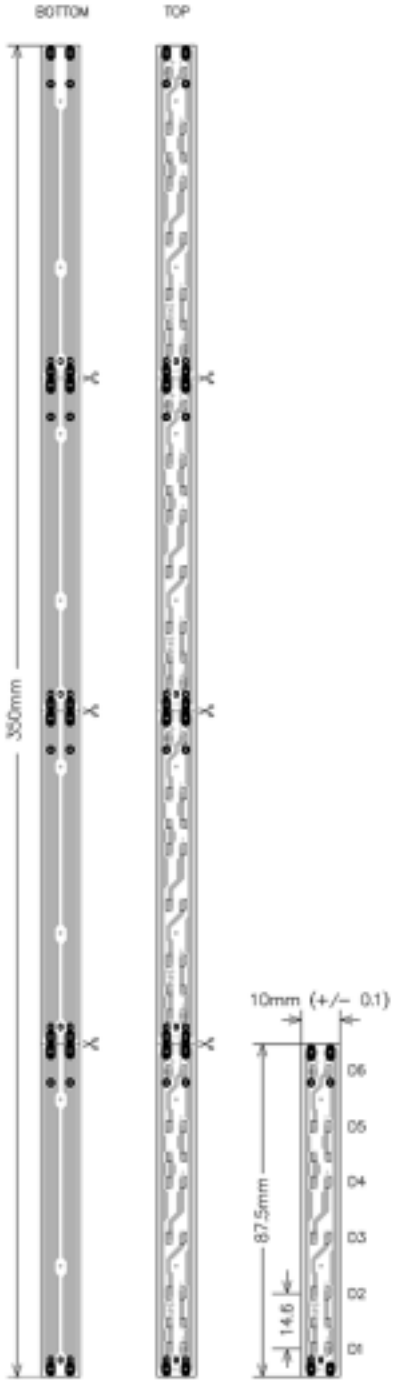
- Waterproof (IP67) design for outdoor use
- Perfect solution for illuminated signs, 3D space letters
- Slim aluminum waterproof housing (C20): 35mm x 21mm
- Distance between modules: 6,5mm
- Length of the cable between modules: 80mm
- Number of LED modules in the package: 200 pieces

LED PARAMETERS

- Operating voltage: 12V DC
- Operating current: 20mA
- LEDs viewing angle: (2*1/2) 80°/130°
- Energy dissipation: 0,24W
- Brightness of the single module : 6.5lm (C-20, white)
- Operating temperature restrictions: -25°C to +80°C




# FLEX LONG 24V EXTRA BRIGHT (white)
# 24V DC, 24 LEDs - 350mm / 4 modules (87,5mm)

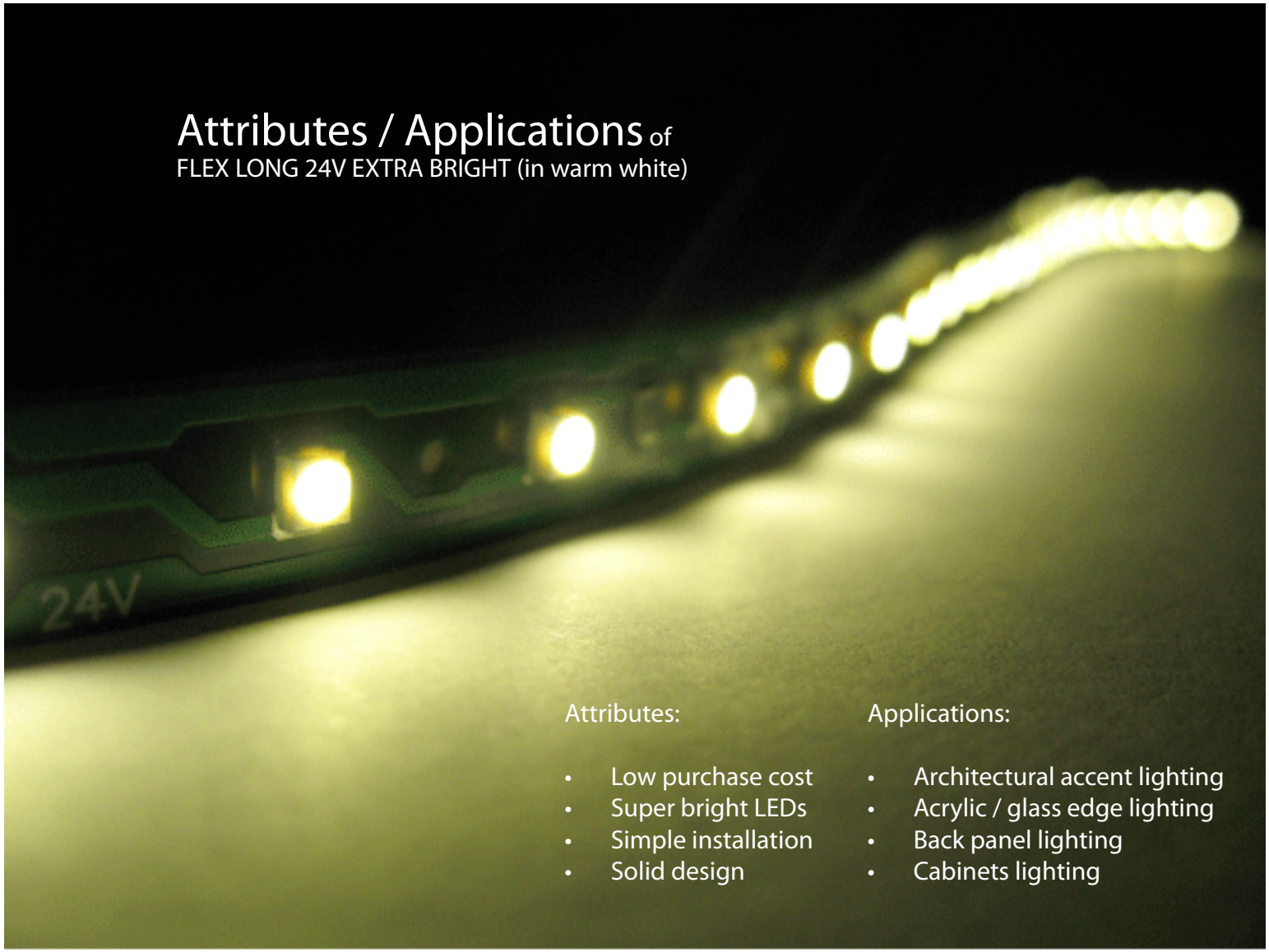
PCB PARAMETERS

- PCB-Type: FR4-0,32mm
- Operating voltage: 24V DC
- Stable power consumption: 1,7W
- Two layers design, very low resistance
- High current handling capability and long lines connections allowed
- Cooper wires thickness: 0.2Oz
- RoHs compliant product
- Solder mask color: Green
- Solder mask printing: White
- Connections type options: Pins (male/female), elastic cable
- Method of surface assembly : 3M double side adhesive tape

LED PARAMETERS

- LED-Type: SMD, PLCC-2 housing
- Dice: (InGan)
- LED viewing angle: 120°
- Number of LEDs soldered on 350mm PCB: 24 pieces
- Number of modules / possible cutting spots: 4pieces /3 spots
- Brightness of the single white LED : 1500 mcd @ if = 20mA
- Operating voltage of the white color LEDs Vf: 3,0/3,2 V
- Forward current If: 20mA
- Operating / Storage temperature: -40°C bis +85°C
- RoHs compliant product

Product made in Poland by LEDsON




# Attributes / Applications of
FLEX LONG 24V EXTRA BRIGHT (in warm white)

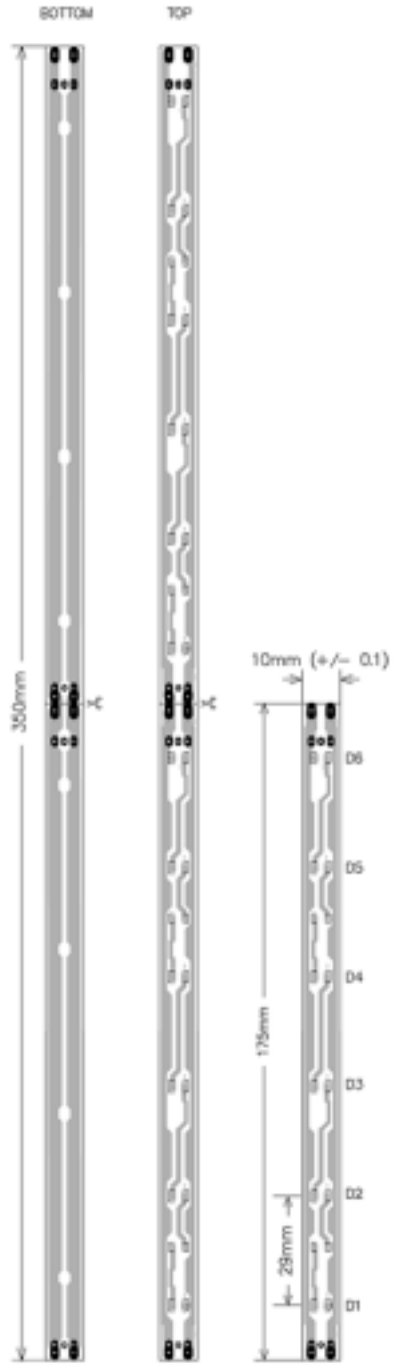
Attributes:

- Low purchase cost
- Super bright LEDs
- Simple installation
- Solid design

Applications:

- Architectural accent lighting
- Acrylic / glass edge lighting
- Back panel lighting
- Cabinets lighting

Product made in Poland by LEDsON




# FLEX LONG 24V BRIGHT (white)

24V DC, 12 LEDs - 350mm / 2 modules (175mm)

## PCB PARAMETERS

- PCB-Type: FR4-0,32mm
- Operating voltage: 24V DC
- Stable power consumption: 0,85W
- Two layers design, very low resistance
- High current handling capability and long lines connections allowed
- Cooper wires thickness: 0.2Oz
- RoHs compliant product
- Solder mask color: Green
- Solder mask printing: White
- Connections type options: Pins (male/female), elastic cable
- Method of surface assembly : 3M double side adhesive tape

## LED PARAMETERS

- LED-Type: SMD, PLCC-2 housing
- Dice: Weiß (InGan)
- LED viewing angle: 120°
- Number of LEDs soldered on 350mm PCB: 12 pieces
- Number of modules / possible cutting spots: 2 pieces / 1 spots
- Brightness of the single white LED : 1500 mcd @ if = 20mA
- Operating voltage of the white color LEDs Vf: 3,0/3,2 V
- Forward current If: 20mA
- Operating / Storage temperature: -40°C bis +85°C
- RoHs compliant product

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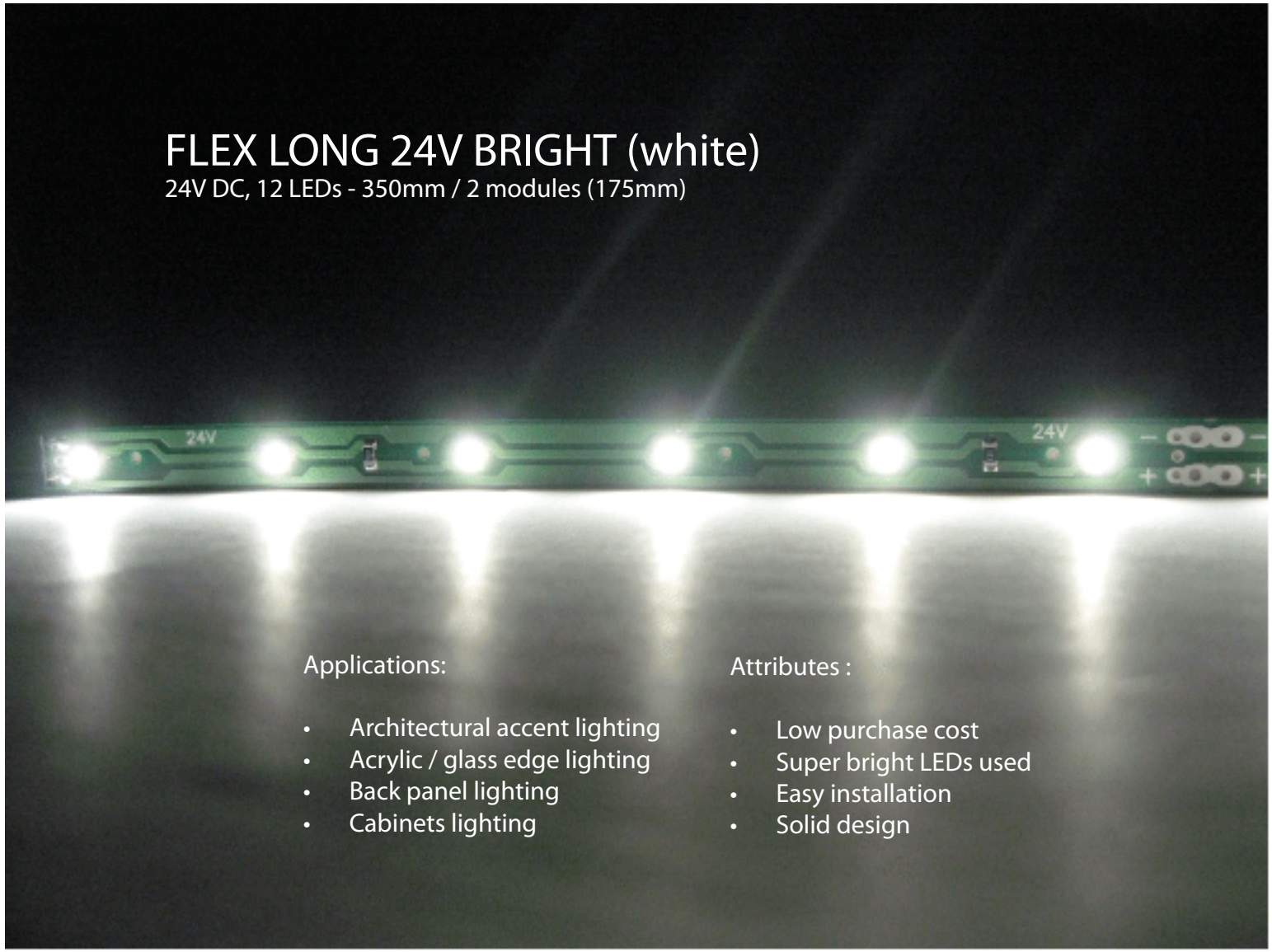
# FLEX LONG 24V BRIGHT (white)

24V DC, 12 LEDs - 350mm / 2 modules (175mm)



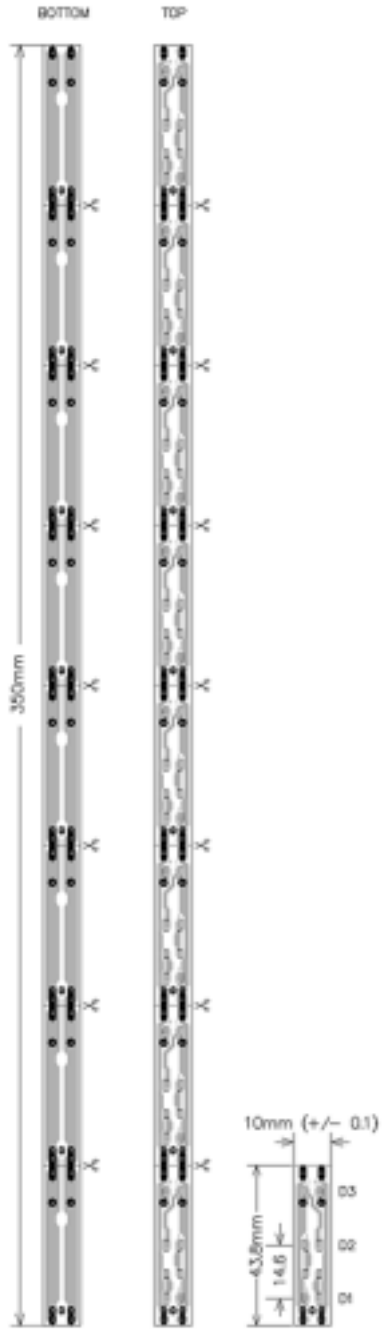

Applications:

- Architectural accent lighting
- Acrylic / glass edge lighting
- Back panel lighting
- Cabinets lighting

Attributes :

- Low purchase cost
- Super bright LEDs used
- Easy installation
- Solid design

Product made in Poland by LEDsON




# FLEX LONG 12V EXTRA BRIGHT (white)

12V DC, 24 LEDs - 350mm / 8 modules (43.5mm)

## PCB PARAMETERS

- PCB-Type: FR4-0,32mm
- Stable power consumption: 1,7W
- Operating voltage: 24V DC
- Two layers design, very low resistance
- High current handling capability and long lines connections allowed
- Cooper wires thickness: 0.2Oz
- RoHs compliant product
- Solder mask color: Green
- Solder mask printing: White
- Connections type options: Pins (male/female), elastic cable
- Surface method of assembling : 3M double side adhesive tape

## LED PARAMETERS

- LED-Type: SMD, PLCC-2 housing
- Dice: (InGan)
- LED viewing angle: 120°
- Number of LEDs soldered on 350mm PCB: 24 pieces
- Number of modules / possible cutting spots: 8 pieces / 7 spots
- Brightness of the single white LED : 1500 mcd @ if = 20mA
- Operating voltage of the white color LEDs Vf: 3,0/3,2 V
- Forward current If: 20mA
- Operating / Storage temperature: -40°C bis +85°C
- RoHs compliant product

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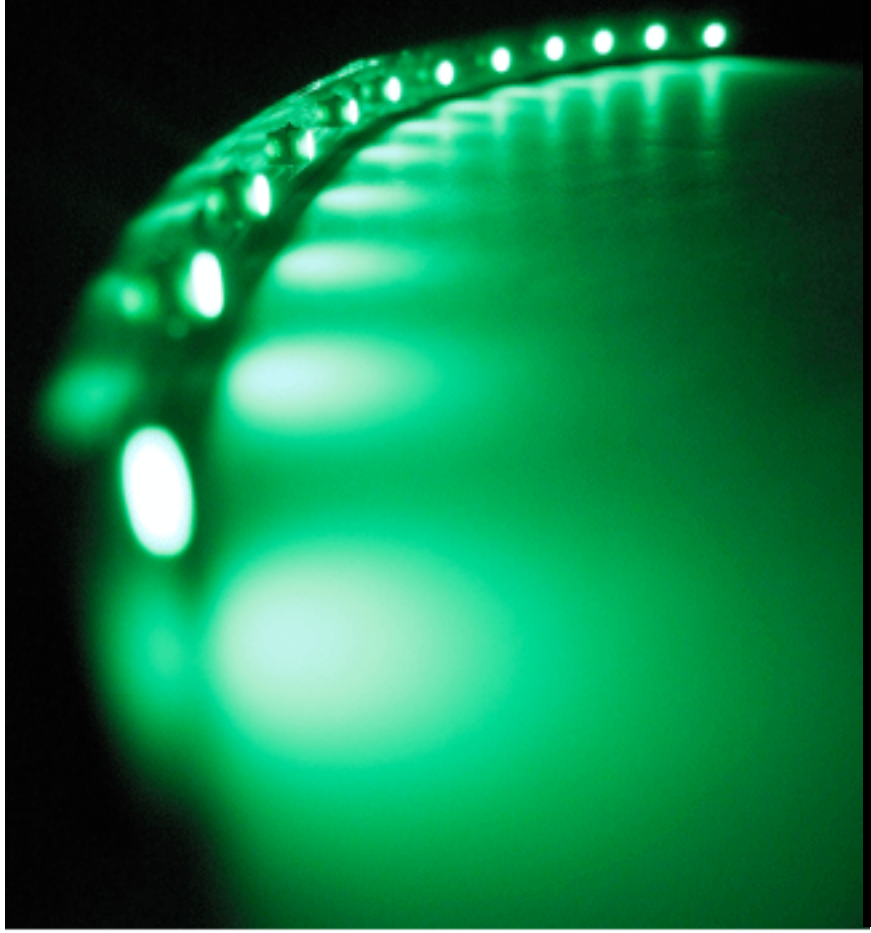
# Attributes / Applications of

FLEX LONG 12V EXTRA BRIGHT (in green), 24 LEDs / 350mm



Applications:

- Architectural accent lighting
- Acrylic / glass edge lighting
- Back panel lighting
- Cabinets lighting

Attributes :

- Low purchase cost
- Super bright LEDs used
- Easy installation
- Solid design

Product made in Poland by LEDsON

Yours local distributor

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