



BNZ EDGELIT

18W BAR

Model Number: 1218

18 LED BACKLIT BAR

GSB | ACP BACKLIT SIGNAGE

Providing Better Solutions



EDGELIT BAR



Product Overview

BNZ **Rigid Backlit Bar - 18 LED** is a high-output, constant-voltage lighting solution designed for GSB/ACP backlit boards and large signage boxes.

Built on a **2.0mm aluminum PCB** with high thermal connectivity, this bar delivers strong brightness, long life, and uniform illumination for professional signage applications.

Key Features



High brightness
upto **2160LM/BAR**



Individual LED
cutting
flexibility



IP20 protection
for dry indoor
use



Long life up to
50,000 hours



**2.0 mm aluminum
PCB** for superior
heat dissipation



1 Year
Warranty



165° wide beam
angle for even
light spread



**Reliable
performance** for
large signage



**Constant
voltage** design
for stable
performance

Available Colors



10000K

*Other CCT and colors available on request.

Certifications & Compliance



Technical Specifications

Electrical Specifications	
Module Name	BNZ 18 LED Edgelit Bar
Model no.	1218
Input Voltage	12V DC
Power Type	Constant Voltage
Power Consumption	18W / Bar
LED Type	SMD 3030
LEDs per Bar	18 LEDs
Luminous Output	120LM / LED
Total Luminous Flux	~ 2160LM / BAR
Beam Angle	165°
IP Rating	IP20
Lifespan	Up to 50,000 hours
Operating Temperature	-20°C to +60°C
Mechanical Specifications	
PCB Type	Aluminum PCB
PCB Thickness	2.0 mm
Heat Dissipation	High Thermal Conductivity
Cutting	Each LED Cuttable
Mounting Type	Screw Fixing
Application Type	Indoor / Enclosed Signage

Applications and Illumination Guidelines

GSB Backlit Boards

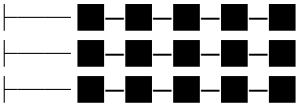
ACP Backlit Boards

Recommended Board / Box Depth	
Based on wide high lumen output and wide beam angle:	
Minimum Depth	50 mm
Ideal Depth Range	70-130 mm
Maximum Depth	150 mm

Anti-Shadow Calculation (Recommended Spacing)

Application Depth	Box Depth	Bar / Safe Spacing (C/C)
Shallow GSB Boards	50-70 mm	110-130 mm
Standard Boards	70-100 mm	130-160 mm
Deep Backlit Boards	100-150 mm	160-200 mm
Result: Uniform brightness across the board with minimal dark patches.		

Recommended Wiring Layout

Connection Method
Bars connected in parallel
Maximum 20 bars / power supply output
Feed power from one side or center for large boards
Typical Wiring Layout
[12V DC PSU] Up to 20 Bars

Best Practices
Maintain equal spacing between bars
Use proper wire gauge for high current
Avoid long single-chain connections

Power Supply Wattage Calculation (20% Margin)

Step 01: Load Calculation

Power per bar = 18W

Bars per circuit = 20PCS

$20 \times 18W = 360W$

Step 02: Add 20% safety Margin

$360W \times 1.2 = 432W$

Recommended Power Supply

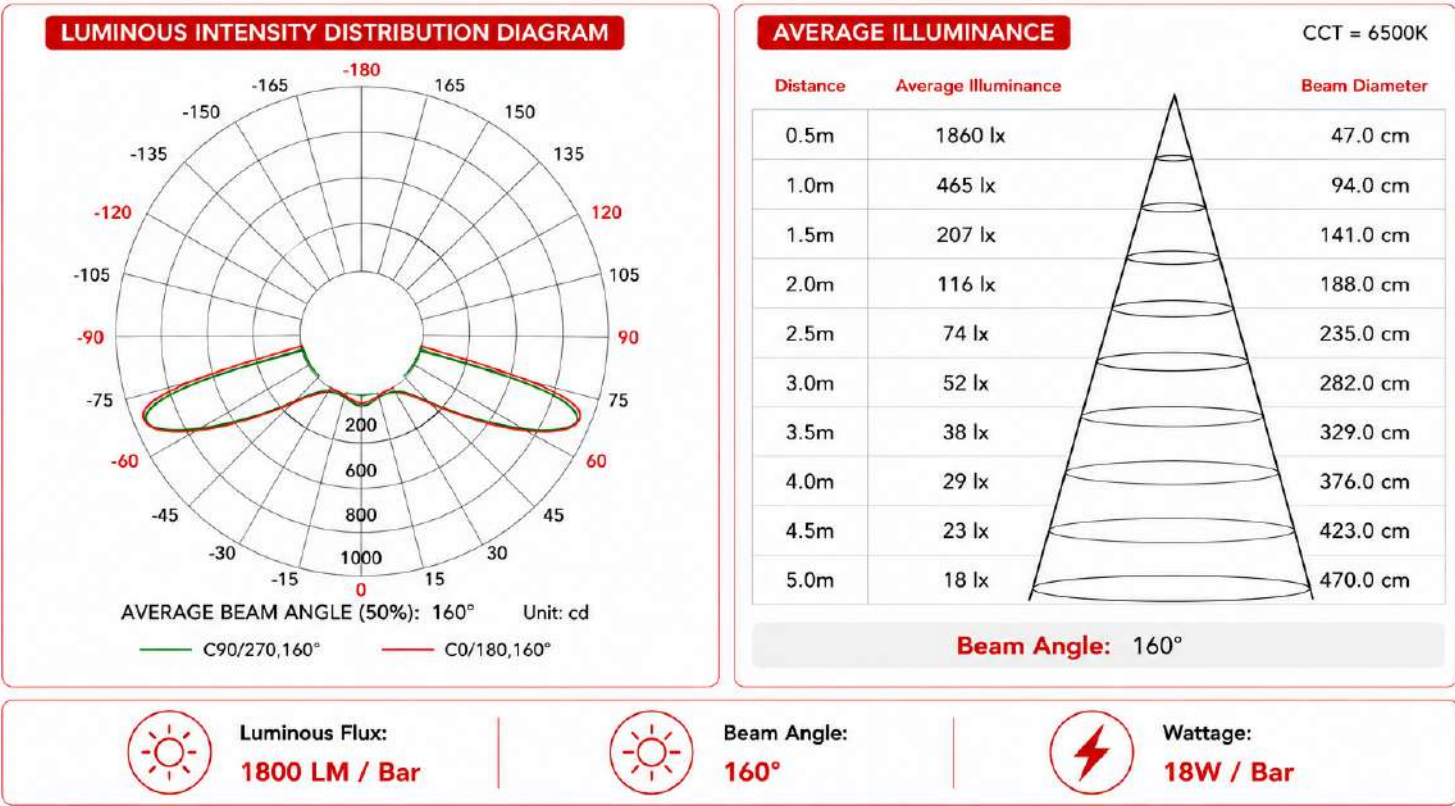
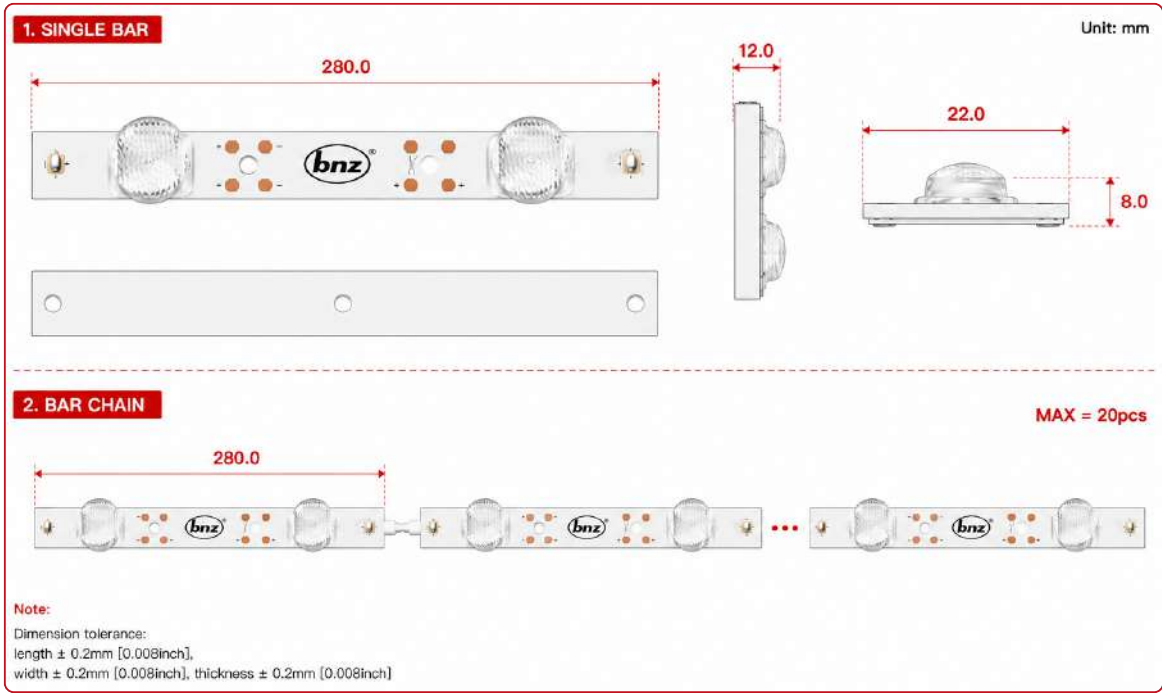
Use multiple 12V DC power supplies, total capacity $\geq 450W$

Example: 3 x 150W, OR 4 x 120W

General Formula:

$\text{Total Bars} \times 18W \times 1.2 = \text{Required PSU Wattage}$

Luminous Intensity Distribution Analysis



Note: The above data is tested based on LEDIFY SIDELIT RIGID BAR 18W at 12V DC.
Actual performance may vary depending on installation environment and conditions.

Packaging Details

Packaging Type	Quantity
Master Box	500 PCS
Product Packaging	Bulk

Attention before installation

- Before installation, check that the product parameters are consistent with the requirements. (Seeing product specifications or product labels)
- Load voltage, current power and power supply should be matched with the product.
- Follow the instructions of wiring diagram (first connect the load and then the power supply) to avoid short circuit.
- Make sure the correct connection of positive and negative poles between products and power supply. Otherwise, the LEDs do not turn on.
- Make sure the power cord firmly screwed into the terminal and a should not be pulled out by hands.
- The terminal should have insulation waterproof and anti-corrosive treatment.
- After installation, the fabric light box must be covered with cloth within 48 hours.
- Please avoid leaving the light box idle for a long time.

Important Installation Notes

- Use only regulated 12V DC Constant voltage power supplies.
- Do not overload PSU outputs.
- Ensure proper ventilation and heat dissipation.
- IP20 suitable for indoor or enclosed applications only.
- Follow recommended spacing to avoid black shades.
- Installation must be performed by trained technicians only.

Warnings

- Do not disassemble or retrofit the light. Do not touch the surface of the light with a sharp object.
- Do not do live-line working during installation especially for high voltage product.
- Do not use any organic chemical solvents Use neutral glass adhesive to fix this product and it needs to be dried 24 hours in the open environment after operation.
- Treat the ends and the circuit connection points that are not connected to the main line with insulation, waterproof, and anti-corrosion in the installation.
- Use 18AWG (0.75mm² cross-sectional area) or thicker core wire to avoid adverse consequences caused by overheating, if the power cable need to lengthen.
- Make sure the input voltage meets the requirements and lines are connected correctly before lighting on.
- This product is for signage, and do not use as general lighting.
- Series connection within the maximum run.
- The length of the power cable between the power supply and the led strip should not exceed 2m. Otherwise, large circuit loss will lead to inconsistent brightness.
- Installation, maintenance and repair should be operated by a qualified technician.

Statements

- Repair should be operated by a qualified technician, if the external circuit or main line of this product is damaged.
- The parameters given in this manual are typical values and for reference only.
- All illustrations and drawings in this manual are for reference.
- This product is subject to change without notice.

Recycling

- LED lighting products belongs to electronic products, please do recycling treatment according to the relevant WEEE directives.

Common Faults and Troubleshoot

Quick Guide		
Problems	Reasons	Solutions
All LEDs can not light ON	No electric supply	Fix the short circuit problem
	Automatic power protection from the open or short circuit in output of the power supply	
	Wrong connection of power supply	
LEDs can not light on partly	Some switching mode power supplies are not powered	Correctly connection
	Power supply line error	
	Mistaken wire connection of some of products	
Brightness of LED is inconsistent or insufficient	Power overloaded	Replace with more powerful power
	Power supply circuit excessive consumption	Make sure the working voltage of the product within 25% of standard voltage, or keep balance by circuit power consumption
	Excessive quantities in series connection of the product	Reduce the quantities of the product in series connection to meet requirement
LED flicker	Connection point fault	Remove bad connection point
	Switching power supply failure	Replace a new power supply
	Wrong Installation or use of products	Please follow the instructions



For more information

No. 27, Adinath Trade Complex, Adinath Nagar,
200 feet ring road, Jawaharlal Nagar Road,
Madhavaram, Tamil Nadu, Chennai - 600060



+91 9176310595



info@bnzindia.com



bnzindia.com



Chennai | Delhi | Mumbai | Cochin | Bangalore

