

**Description:** BKT41S-41-12V LED lattice backlight (LED curtain, LED bamboo slips) ; LATTICE LED Matrix Lighting System is the most versatile and practical illumination solution for indoor and outdoor sign cabinets and large area illumination. Innovative design of LATTICE system comes in lightweight easy-to-install rolls, which allows for easy population of perfectly spaced LEDs in minutes for uniform backlit lighting.

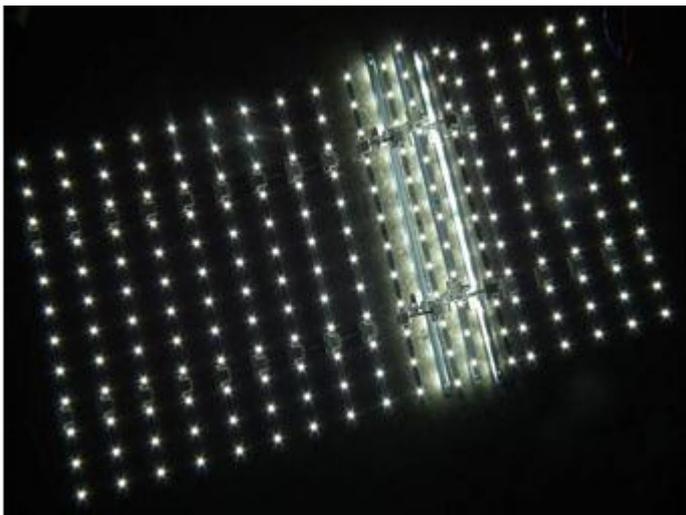


**Features:**

1. Highest luminous efficiency 100Lm/W; The actual test in excess of 50% optical efficiency than similar products.
2. 41.6mm (1.64") Perfect square Matrix
3. Minimal depth required at 60mm distance no hot spots on the graphic!
4. Available in 500mm, 250mm and 125mm widths and max 2M/6.56ft length rolls
5. Warranty: 3 years

**Scope of applications:**

Dedicated direct type backlight, advertising signs backlight, Advertising light boxes.



**CRI > 85**

**LED to LED**

41.6mm/1.64"

**Luminous efficiency**

100Lm/W DC12V

**Bar to Bar**

41.6mm/1.64"

(Optional 60mm)

**Brightness**

12900Lm/m<sup>2</sup>

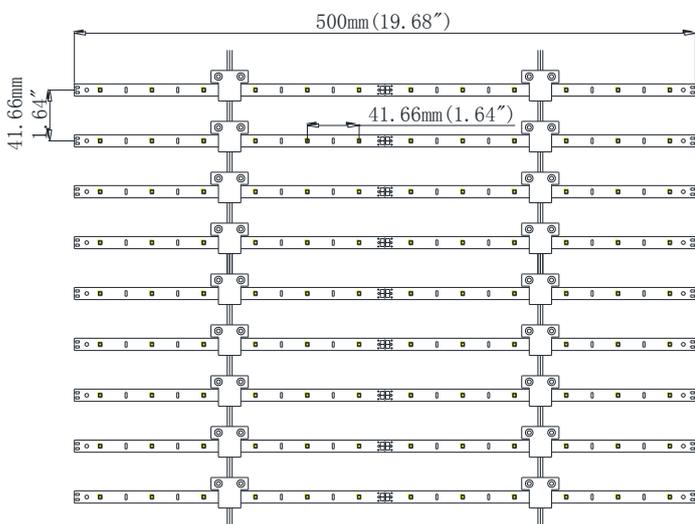
1200Lm/sqft

**LED to face distance**

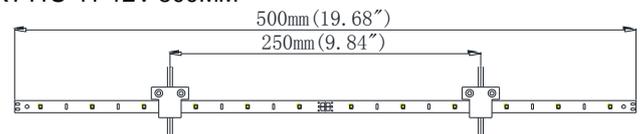
> 60mm/2.36"

**Power Consumption**

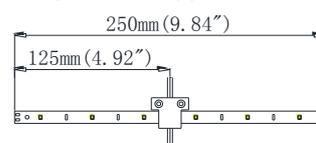
129W/m<sup>2</sup> 12W/sqft



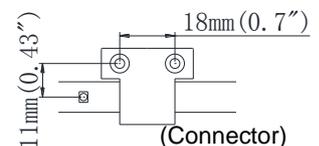
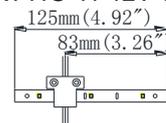
BKT41S-41-12V-500MM



BKT41S-41-12V-250MM



BKT41S-41-12V-125MM



connectors position may change

\*Tolerance range for optical and electrical data: ±10 %. Life 40000hours@25 °C

### Application specs

MODEL	BKT41S-41-12V
Single-sided/Double-sided	Single-sided
Brightness Level	Top Highest brightness
Brightness	1200Lm/sqft
Min. Cabinet Depth*	>60mm(2.36")
Default Colors	CW 6000~6500K
Other Colors*	WW 2700~3200K NW 4200~4700K
Waterproof Rating	Non waterproof (Optional Conformal Coated, IP66)
Application Environment	Dry & Damp Locations
Operating Temperature	-22°F~158°F (-30~70°C)
Certification	CE RoHS FCC

Minimum distance required from Lattices to face. Calculated with 2447 milky white acrylic with no graphics

Depth on faces with graphics can have thinner cabinet depths  
Consult with XineLam for samples and depth demonstrations  
Special Order. Consult with XineLam Reps and Distributors

### Electrical specs

SKUs		BKT41S-41 12V-500MM	BKT41S-41 12V-250MM	BKT41S-41 12V-125MM
Operating Voltage		12V DC		
Power consumption	bar	2.7W/bar	1.35W/bar	0.675W/bar
	sqft	12W/sqft	12W/sqft	12W/sqft
	m <sup>2</sup>	129W/m <sup>2</sup>	129W/m <sup>2</sup>	129W/m <sup>2</sup>
	L:ft	19.7W/ft	9.85W/ft	4.9W/ft
	L:M	64W/m	32W/m	16W/m
Voltage Drop*	12bar 0.5m/1.6ft	-0.07V 32.4W	-0.07V 16.2W	-0.05V 8.1W
	24bar 1m/3.28ft	-0.26V 64W	-0.26V 32W	-0.10V 16W
Power /Roll length	48bar 2m/6.56ft	-0.82V 118W	-0.82V 59W	-0.8V 30W
	luminous efficiency	100Lm/W		

Voltage drop : Start bar to the end bar voltage difference between.

Series connection length: Max 48bar 2m

### Power load recommendations

SKUs	BKT41S-41 12V-500MM	BKT41S-41 12V-250MM	BKT41S-41 12V-125MM
<a href="#">HLG-120H-12B</a>	45bars	90bars*	180bars*
Power 120W CC+CV Driver	1.87m / 6.1ft	--	--
	1m <sup>2</sup> / 10.76sqft		
<a href="#">NES-75-12</a>	24bars	38bars	76bars
Power 75W CV driver	1m/3.28ft	2m/6.56ft	4m/13.12ft
	0.5m <sup>2</sup> / 5.38sqft		
Recommended Dimming system	Dimming power + PWM signal(Option1-10V) HLG-120H-12B + DM-IR8A		
Other Dimming system	CV power + PWM signal + PWM amplifier NES-75-12 + DM-IR8A + CDA-02		

12V LED lattice – Max Series connection 48bars(2m/6.56ft),  
If you need more series connection length: select 24V or built-in constant current (12-48V).

\*Calculations are based on 85% max load on CV power supplies

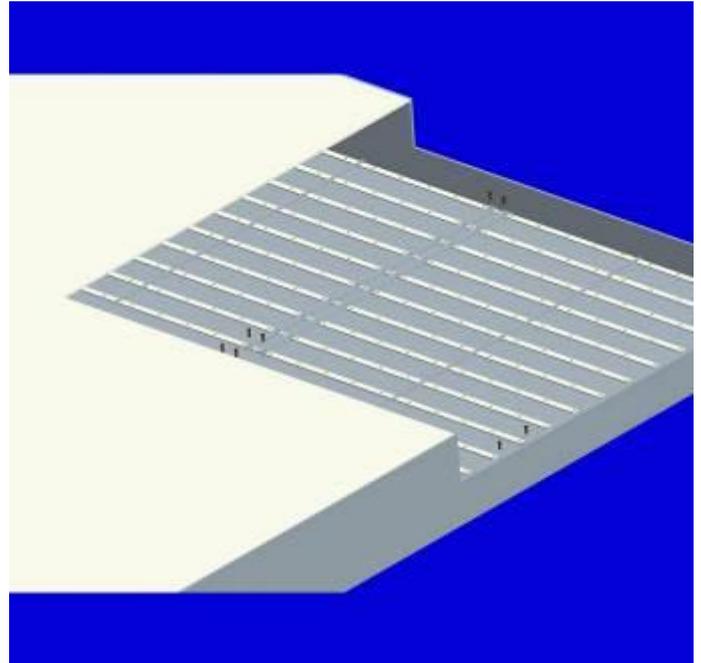
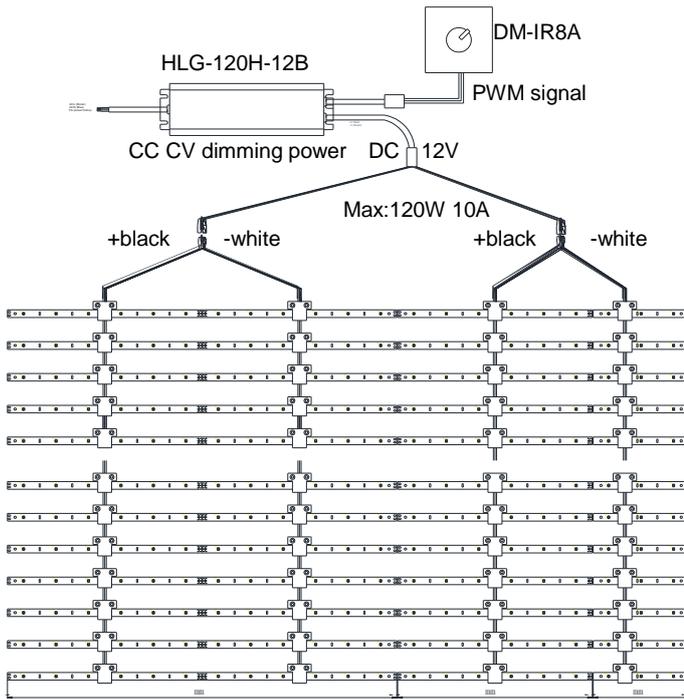
### Configuration specs

SKUs		BKT41S-41 12V-500MM	BKT41S-41 12V-250MM	BKT41S-41 12V-125MM
LED Pitch		41.6mm / 1.64"		
Bar to Bar Pitch*		41.6mm / 1.64"		
Bar Length (Roll width)	mm	500mm	250mm	125mm
	Inches	19.68"	9.84"	4.92"
#Lamps LED QTY	/ bar	12LED/bar	6LED/bar	3LED/bar
	/ sqft	54LED / sqft		
	/ m <sup>2</sup>	576LED / m <sup>2</sup>		
#Bars	Area	4bar/sqft	8bar/sqft	16bar/sqft
		48bar/ m <sup>2</sup>	96bar/ m <sup>2</sup>	192bar/ m <sup>2</sup>
	Length	7.27bar/ft	7.27bar/ft	7.27bar/ft
		24bar/m	24bar/m	24bar/m
10ft /Roll	36Bar / 4.9ft 36bar / 1.5m Roll			
Cut Increment		Every 3 LED		

Bar to Bar pitch:

You can choose 60mm pitch product, installation adjustments to reduce bar to bar of size

## Wiring Diagram



**CAUTION:** This product is installed by a professional engineering staff.

### Safety Information

1. The LED lattice (curtain) itself and all its components may not be mechanically stressed.
2. Assembly must not damage or destroy conducting paths on the circuit board.
3. Installation of LED lamp (with power supplies) needs to be made with regard to all applicable electrical and safety standards. Only qualified personnel should be allowed to perform installations.
4. Correct electrical polarity needs to be observed. Wrong polarity may destroy the LED lattice (curtain).
5. Please ensure that the power supply of adapters power to operate the total load.
6. When mounting on metallic or otherwise conductive surfaces, there needs to be an electrical isolation points between strip and the mounting surface.
7. Pay attention to standard ESD precautions when installing the LED lattice (curtain).
8. Damaged by corrosion will not be honored as a materials defect claim. It is the user's responsibility to provide suitable protection against corrosive agents such as moisture and condensation and other harmful elements.
9. Non Waterproof LED lattice (curtain)
10. LED lattice (curtain) can't be used as support, you need fixed in the frame, fixed to the wall, otherwise, may cause deformation.
11. Please be sure you choose right AC/DC power adaptor to drive LED lattices. If you have difficulty to buy such adaptor locally, please turn to us. (If you use poor quality of the LED power supply; LED lattice (caused damage, we will not warranty).