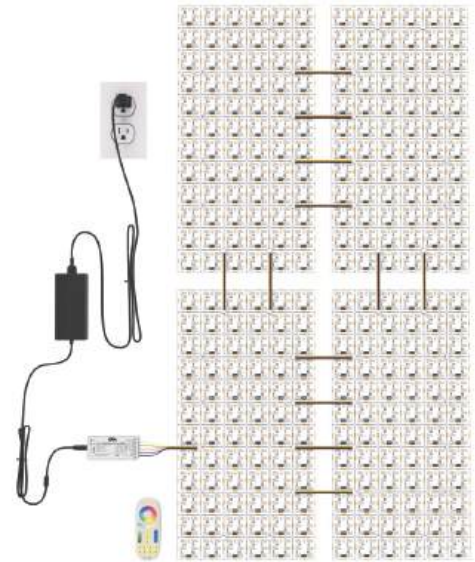# RGBCB SELECTABLE LED LIGHT SHEET

DESCRIPTION:

The RGBCB LED Light Sheet is a versatile and high-performance lighting solution designed for backlighting translucent materials, advertisements, and accent lighting. Built with 3 oz pure copper and flexible FPCB, it ensures excellent heat dissipation and extended durability. Measuring 12" x 24", this LED sheet features 1296 LEDs per sheet, selectable color temperatures (3000K, 4000K, 5000K), and a high CRI of 90+, delivering vibrant, true-to-life colors. With 30W per color, it offers superior brightness and uniform illumination. The 3M adhesive backing allows for easy installation, while its IP20 rating makes it ideal for indoor use.

FEATURES:

- 24V DC input for stable, energy-efficient performance
- High CRI 90+ for vibrant, true-to-life color rendering
- Selectable RGBCB options for customizable lighting effects
- 1296 LEDs per sheet for uniform and intense illumination
- 3 oz pure copper FPCB for excellent heat dissipation and durability
- 3M adhesive backing for quick, hassle-free installation
- Cuttable design for precision customization
- Low heat output to prevent damage to delicate surfaces
- Wide beam angle for expansive light coverage
- Lightweight and flexible construction for easy handling and installation
- IP20 rating for safe indoor use in dry locations
- Long LED lifespan of 50,000 hours (L70) for lasting performance
- Flicker-free operation for eye comfort and reduced strain
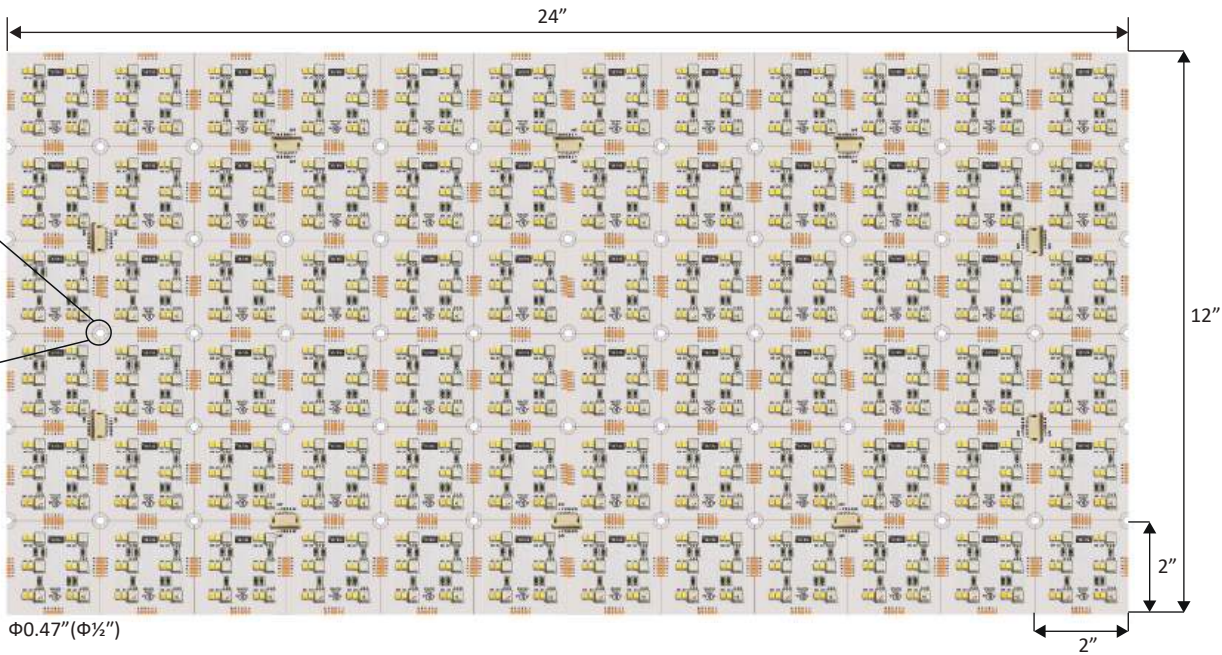- Compatible with dimmers and controllers for dynamic lighting control

APPLICATIONS:

- Backlighting translucent materials and signage
- Stone backlighting
- Accent lighting
- Task lighting
- Cabinet lighting
- Cove lighting
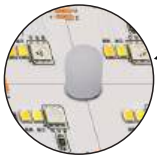- Nightclubs and hotel lobbies
- Community centers

TECHNICAL SPECIFICATIONS:

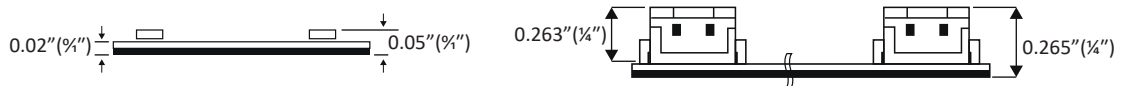| Voltage	24V DC				
LED Type	SMD 5050 + 2835				
LED Quantity	1296 LEDs per sheet				
LED Segments (ft)	6 LEDs/segment				
Wattage	30W per color				
CRI	90+				
Size	12" x 24"				
RGBCB	Red	Green	Blue	Cool White	Warm White
Lumen (lm/sheet)	720 lm	2430 lm	650 lm	5100 lm	5000 lm
Efficacy (lm/W)	24 lm/W	81 lm/W	21 lm/W	170 lm/W	166 lm/W

DIMENSIONS:
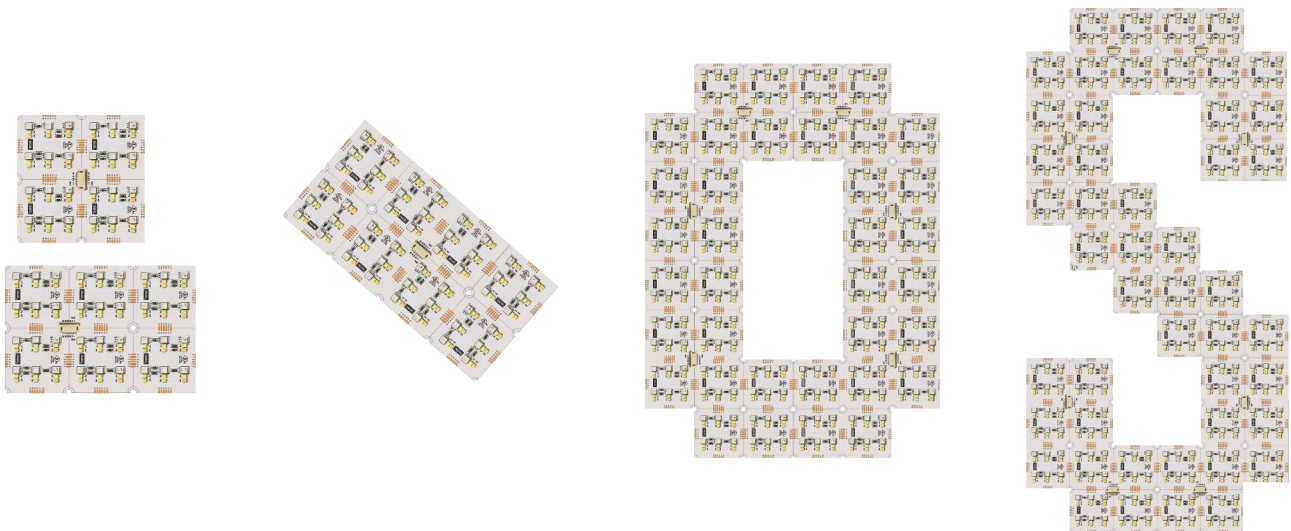
The hole position allows for secure screw mounting.

The hole position supports rubber dome installation, with a maximum load capacity of **198 lbs** per dome.

24"

12"

2"

2"

Φ0.47"(Φ½")

0.02"(⅝") 0.05"(⅝")

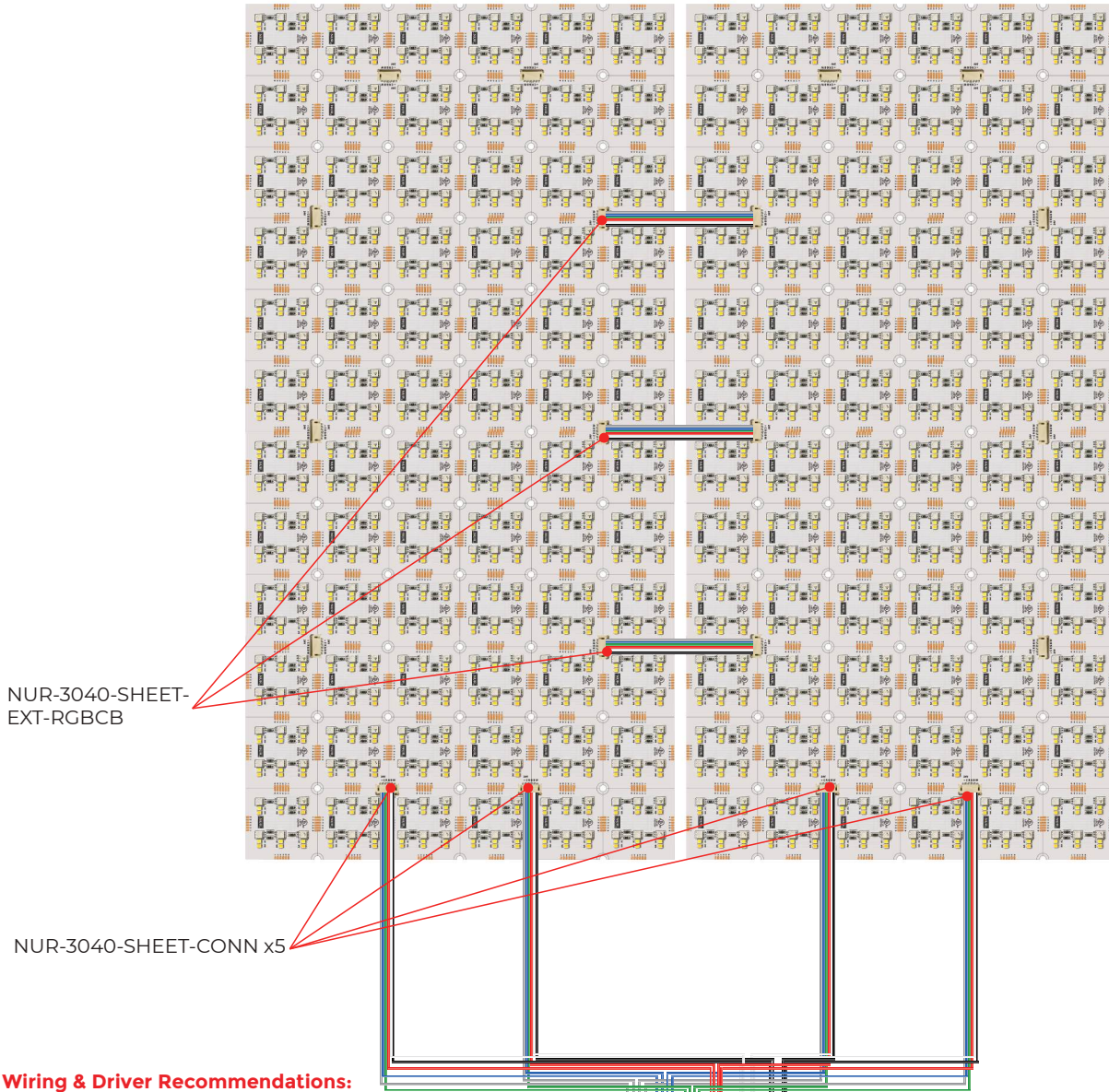0.263"(¼") 0.265"(¼")

CUTTING SEGMENTS:

The LED sheets can be cut into various custom shapes. To ensure proper functionality, always cut along the pre-marked lines to maintain electrical connectivity. The images below illustrate the smallest possible linear routing options:

• The green box shows routing types that preserve the electrical connection and will function correctly.
• The red box indicates routing types that disrupt the electrical connection, preventing proper operation.

WARNING:

Due to the high power consumption of the light sheet, multiple wire connections are required to ensure longevity. It is recommended to use 6–10 wire connectors simultaneously to distribute the current evenly and prevent damage.
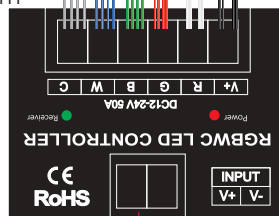

NUR-3040-SHEET-EXT-RGBCB

NUR-3040-SHEET-CONN x5

Wiring & Driver Recommendations:
- Use 22 AWG wire for currents between 1.28–1.46A per pin.
- For optimal performance and safety, connect a maximum of 2 LED sheets to a single driver.
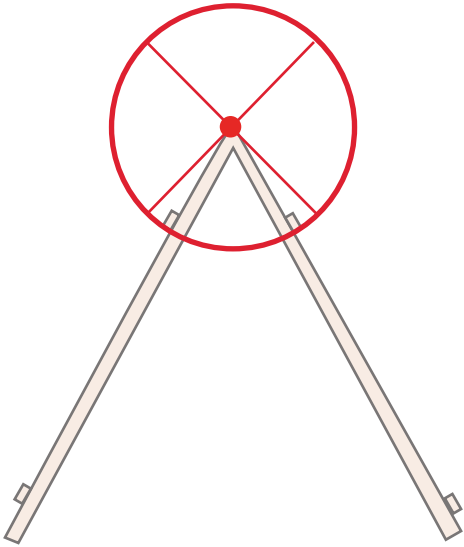
30W per color (5 CCT per sheet):
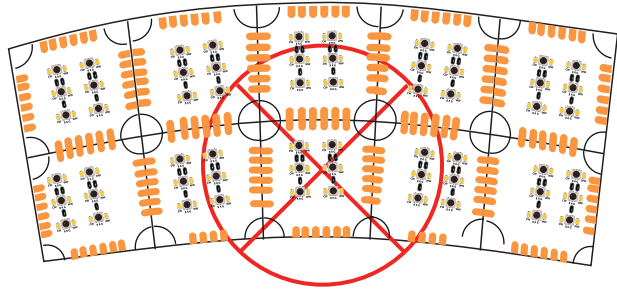- 150W per sheet × 2 sheets = 300W total
- Recommended driver: 400W

RGBWC LED CONTROLLER

DC12-24V 50A

V+ R G B W C

Power ● ● Receiver

C E RoHS

INPUT V+ V-

RGBCW Power + -

Note: For optimal performance and longevity, it's recommended to operate adapters at 80% of their maximum load capacity.
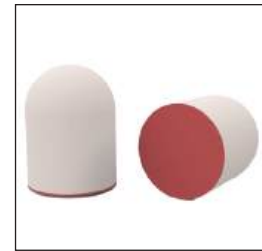
LED SHEET FLEXIBILITY:

Bending LED sheets or sections along a horizontal plane may break the circuit traces and invalidate the warranty.

Bending LED sheets or sections at sharp angles can damage the circuit traces and void the warranty.

ACCESSORIES (SOLD SEPARATELY):

- Connectors for LED Sheet
- SKU: NUR-3040-SHEET-EXT-RGBCB
         NUR-3040-SHEET-CONN x5
- Connector: 6-pin
- Wire Gauge: 22 AWG
- Current Capacity: 1.28–1.46 A per pin
- Cable Length: 19.69 inches

- Translucent Silicone Standoff Dome Spacer
- SKU: NUR-3040-SHEET-DOME x10
- Color: Translucent
- Double-sided adhesive
- Height: 1/2 inch
- Width: 3/8 inch