

CENTRIC WARM™ LED Strip Lights

PN 3004.24 | 3004.21 | 3004.19

Waveform Lighting's CENTRIC WARM™ LED strip lights feature extra-low color temperatures with ultra-high light quality that replicates the look of deeply dimmed incandescent and halogen lighting in a versatile and modern LED strip form factor.

Available in 2400K, 2100K or 1900K, these LED strip lights are an excellent fit for residential and hospitality applications where an extra-warm and low circadian-impact lighting environment are needed.

PRODUCT FEATURES

- Available in 2400K, 2100K or 1900K
- 95+ CRI and R9 > 80
- 350 lumens per foot (1100 lumens per meter)
- Ultra-high density of 37 LEDs per foot (120 LEDs per meter)
- 4 oz copper circuitry for reduced voltage drop
- 3M™ VHB™ double-sided adhesive pre-applied on backside
- UL listed (E508810), for indoor use only

ELECTRICAL SPECIFICATIONS

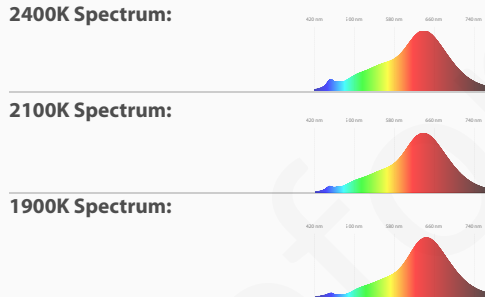
Input type:	DC Constant Voltage
Input voltage:	24V DC
Current draw per ft:	225 mA @ 24V DC
Current draw per reel:	3.8 A @ 24V DC
Power draw per ft:	5.5 W @ 24V DC
Power draw per reel:	90 W @ 24V DC
Max run:	32.8 ft (10 meters)

MECHANICAL SPECIFICATIONS

Length:	16.43 ft (5008 mm)
Width:	0.394 in (10 mm)
Height:	0.067 in (1.7 mm)
LED Density:	37 per ft (120 per m)
LED Spacing (OC):	0.327 in (8.3 mm)
Cut-line spacing:	1.968 in (50 mm)
PCB copper thickness:	4 oz
Wire leads (both ends):	16 AWG, 13.78 in (350 mm)

PHOTOMETRIC SPECIFICATIONS

Light output per ft:	350 lumens
2400K CCT:	2400K ± 50K
2100K CCT:	2100K ± 50K
1900K CCT:	1900K ± 50K
2400K CIE xy:	(0.4880, 0.4150)
2100K CIE xy:	(0.5166, 0.4153)
1900K CIE xy:	(0.5392, 0.4128)
Beam angle:	120°
CRI Ra:	95+
CRI R9:	80+
CRI R13:	90+
TM-30-15 Rf/ Rg:	90+/100



EXTENDED CRI VALUES (TYPICAL)

R1	99
R2	99
R3	97
R4	97
R5	99
R6	98
R7	98
R8	98
R9	94
R10	98
R11	95
R12	92
R13	100
R14	97
R15	100

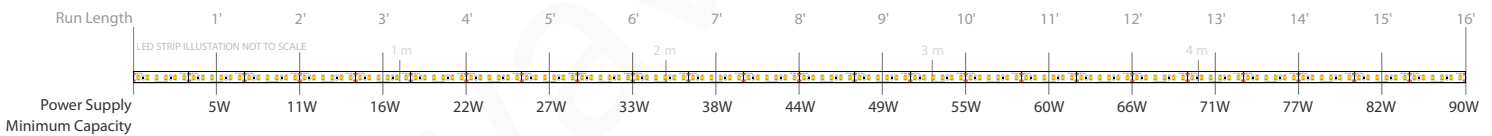
LIFETIME INFORMATION

Warranty period:	36 months (3 years)
Lifetime (L90):	45,000 hours
Lifetime (L70):	54,000+ hours

Lifetime data are based on LED case temperatures (T_c) of 185°F (85°C) using LM-80 and TM-21 calculation methods at 9K hours of actual test data. L90 refers to 90% lumen maintenance (10% light loss), and L70 refers to 70% lumen maintenance (30% light loss).

POWER SUPPLY REQUIREMENTS

The amount of power needed to operate the LED strip lights depends on the total length of the LED strip run. Ensure that any third-party power supplies have sufficient power capacity to operate the LED strip configuration using the chart below.



COMPATIBLE ACCESSORIES

Power Supplies:	3094.096, 3102, 3104, 3092 [†]
Connectors:	3070, 3071, 3072, 7098, 7094 [‡] , 7095 [‡]
Dimmers:	3081, 3094.096 + TRIAC wall-dimmers [§]
Aluminum Channels:	3060, 3061

[†] Requires PN 7094 or equivalent adapter to connect
[‡] Requires connection to wires pre-installed on reel ends, or PN 3070
[§] See tested dimmer list under PN 3094 for additional details

THERMAL MANAGEMENT

Max Ambient Temp (T_A):	125°F (50°C)
Max Case Temp (T_C*):	185°F (85°C)
Typical temp rise:	Δ54°F (Δ30°C)

These LED strip lights are designed to be operated without the need for any additional thermal management. Aluminum channel accessories may assist somewhat in dissipating heat away from the LED strip lights, but are not necessary.

*T_C refers to the temperature of the solder joint between the LED and circuitboard. For non-typical installations where power or thermal density may be higher, monitor this T_C temperature point and verify that the LED solder joints remain below 185°F (85°C) after the system reaches thermal stability.

PART NUMBERS AND ORDERING

2400K	3004.24
2100K	3004.21
1900K	3004.19

CERTIFICATIONS



CAUTION: USE ONLY WITH CLASS 2 POWER UNIT. SUITABLE FOR USE UNDER CABINET OR SURFACE MOUNT. SUITABLE FOR DRY LOCATION USE ONLY. UNCOIL LED REELS BEFORE APPLYING POWER.