

Lightbar 90+ NULB Series 24V Ultra-Low profile Linear LED Source: 4 Watts / 220 Lumens per foot

PRODUCT DESCRIPTION

Nora Lighting's low-profile, Title 24 compliant fixtures provide excellent and even illumination on all surfaces. At only 4 watts per foot, Lightbar 90+ is one of the most energy efficient products in the market producing 90+ CRI. Combined with an ultra low-profile housing, five fixture lengths, an assortment of interconnector cables and mounting brackets that install at a variety of angles, Nora's Lightbar offers an unprecedented level of contractor friendly installations. LED technology eliminates forward heat from the fixture, also no UV or infrared rays to harm artwork or heat sensitive foods. Lighting designers and specifiers will appreciate the true color rendition found only with 90+ CRI output.

FEATURES

- 4 Watts / 220 Lumens per ft
- 90+ CRI (3000K avg. 95 CRI)
- Exceeds California Title 24 high efficacy requirements
- Available in 3000K & 4200K CCT
- Available in 5 different lengths; 6", 12", 24", 36" & 48"
- Easy installation with adjustable aiming mounting brackets
- Flush end connectors
- Dimmable
- Lightbars and Class II Drivers are rated for -20°C operation
- 30,000 hours of rated lamp life

Included with every Lightbar:

- (1) Lightbar,
- (2) Flat Mounting Clips [NAL-201],
- (2) Angled Mounting Clips [NAL-245],
- (1) End to End Connector [NAL-200]. (36" and 48" bars include 3 each of the mounting clips)

Housing

Solid aluminum extrusion with flush mounted end caps

Finishes

Bronze (anodized) and Natural Aluminum.

ELECTRICAL

Voltage: 24V DC

Power Consumption: avg 4.0 Watts per foot

Lumens: Avg. 220 Lumens per ft

Color Rendering Index: 90+ (3000K avg 95)

Light Source: Nichia LEDs

Operating Temperature: -4°F to 140°F (-20°C to 60°C)

Life Expectancy: 30,000 Hours

Maximum Run Length: 24' (100W Driver) / 16' (60W Driver) / 8' (30W Driver)

Color Temperature: Warm White (3000K), Cool White (4200K)

Labels and Warranty

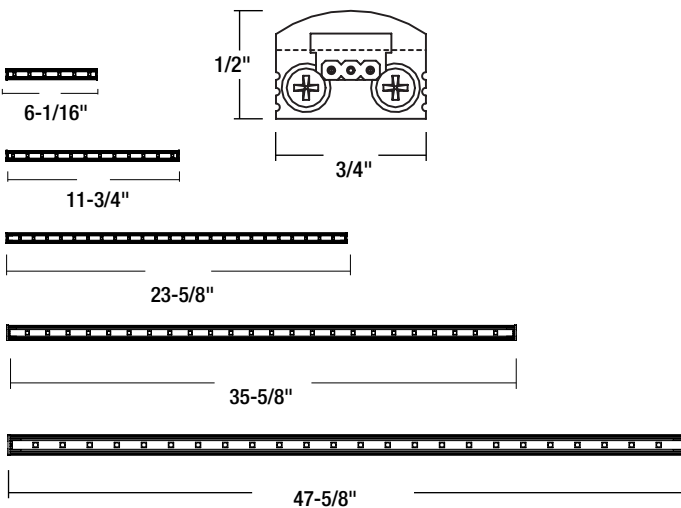
cULus Listed for Dry Location

Title 24 Compliant

2 Year Warranty



DIMENSIONS



A: Length: 6" = 6-1/16", 12" = 11-3/4", 24" = 23-5/8", 36" = 35-5/8", 48" = 47-5/8"
 B: Width: 3/4"
 C: Height: 1/2"

Ultra-Low Profile Linear LED Lightbar 90+

Item No.	Length (Nominal Inches)	Source	Color Temp	Finish
NULB	6	LED	930=3000K	A=Natural Aluminum
	12		942=4200K	BZ=Bronze
	24			
	36			
	48			

EXAMPLE: NULB-24LED930A



ILLUMINATING THE FUTURE...SINCE 1989

Type

Project

Catalog No.

Lamp/Wattage

ACCESSORIES**INTERCONNECTORS**

Item Number	Description
NAL-200	End to End Connector (one is included with each Lightbar)
NAL-202	2" Interconnection Cable
NAL-206	6" Interconnection Cable
NAL-218	18" Interconnection Cable
NAL-238	38" Interconnection Cable
NAL-258	58" Interconnection Cable

MOUNTING CLIPS

NAL-201	Flat Mounting Clip, Chrome - Set of Two (two are included w/ each Lightbar)
NAL-201BZ	Flat Mounting Clip, Bronze - Set of Two
NAL-225BZ	Bar to Bar Joiner, Bronze
NAL-225C	Bar to Bar Joiner, Chrome
NAL-245	Angled Mounting Clip, Chrome - Set of Two (two are included w/ each Lightbar)
NAL-245BZ	Angled Mounting Clip, Bronze - Set of Two
NAL-280C	Adjustable Mounting Clip, Chrome - Set of Two
NAL-280BZ	Adjustable Mounting Clip, Bronze - Set of Two

POWER FEED INTERCONNECTORS

NAL-207	90° - 18" Power Line Interconnector
NAL-207/72	90° - 72" Power Line Interconnector
NAL-208	20" Power Line Interconnector
NAL-208/72	72" Power Line Interconnector
NAL-212	12" Power Line Interconnector with Switch

OTHERS

NAL-220 -	Mini Coupler
NAL-221 -	Mini Power Feed Splitter
NAL-230A -	Motion Sensor, Aluminum
NAL-230BZ -	Motion Sensor, Bronze
NAL-255A -	Mini Touch Dimmer, Aluminum
NAL-255BZ -	Mini Touch Dimmer, Bronze
NAL-270	Connector Retainer Clip
NAL-299/6	6" Diffuser Lens
NAL-299/12	12" Diffuser Lens
NAL-299/24	24" Diffuser Lens
NAL-299/36,	36" Diffuser Lens
NAL-299/48	48" Diffuser Lens

LED DRIVERS**HARDWIRE DRIVERS**

Item Number	Description
NATL-530HW	24V 30W Class II Hardwired Electronic LED Driver
NATL-560HW	24V 60W Class II Hardwired Electronic LED Driver
NATL-5060HW	24V 100W Class II Hardwired Electronic LED Driver
NATL-5100HW	24V 100W Class II Hardwired Electronic LED Driver
NMT-303/24C2D1	120V/24V 300W Dimmable Class II Remote Hardwire Magnetic Driver w/Regulator
NMTD-60/24D	Dimmable Class II Remote Hardware Magnetic Driver (60W)
NMTD-96/24D	Dimmable Class II Remote Hardware Magnetic Driver (96W)

PLUG-IN DRIVERS

NATL-524	24V 24W Direct Plug-In LED Driver
NATL-545	24V 45W Direct Plug-In LED Driver
NATL-596	24V 96W Class II Plug-In Electronic LED Driver

DRIVER ACCESSORIES

NAL-250	Dimmer (Not for use with NMT Series)
NALTL-10	Replacement 10' Power Line Connector for NMT Series & NATL-5100HW
NALTL-30	Replacement 30' Power Line Connector for NMT Series & NATL-5100HW
NATL-302	5" Splitter
NATL-415W	Low Voltage Splice Box
NRA-125/6	6" Extension Cord for NATL-530HW & NATL-560HW
NRA-125/12	12" Extension Cord for NATL-530HW & NATL-560HW
NRA-125/18	18" Extension Cord for NATL-530HW & NATL-560HW
NRA-125/72	72" Extension Cord for NATL-530HW & NATL-560HW
NRA-6035W/6	6' Cord and Plug for NATL-530HW & NATL-560HW
NRA-6035W/10	v10' Cord and Plug for NATL-530HW & NATL-560HW
NUSP-JBox	Junction Box required for hardwiring NATL-530HW & NATL-560HW

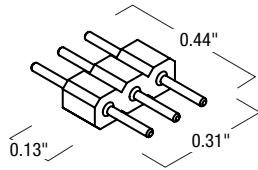
Example: NULB-6LED930BZ

6505 Gayhart St., Commerce, CA 90040 | Phone: 800.686.6672 | FAX: 800.500.9955 www.noralighting.com | e-mail: nora@noralighting.com
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LED Lightbar Interconnectors & Mounting Clips

End to End Connector

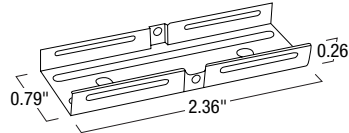
Miniature connector for seamless end-to-end transitions. One is included with every Lightbar.



NAL-200: End to End Connector

Bar to Bar Joiner

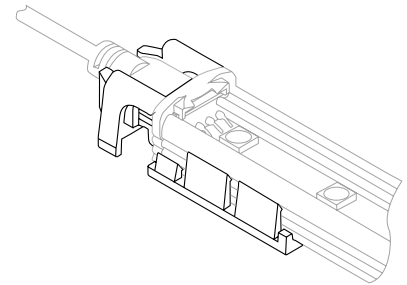
Can be used to provide rigidity when joining two bars together. Has mounting holes.



NAL-225BZ: Bar to Bar Joiner, Bronze
NAL-225C: Bar to Bar Joiner, Chrome

Retainer Clip

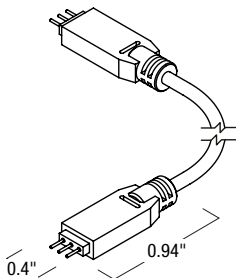
Can be used to keep the connector secured to the light bar.



NAL-270: Connector Retainer Clip

Interconnection Cable

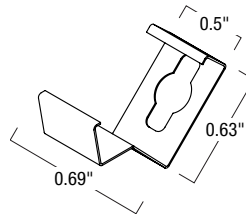
The interconnection cables allow for linking of any 2 Lightbars in any direction.



NAL-202: 2" Interconnection Cable
NAL-206: 6" Interconnection Cable
NAL-218: 18" Interconnection Cable
NAL-239: 38" Interconnection Cable
NAL-258: 58" Interconnection Cable

Angled Mounting Clip (Set of 2)

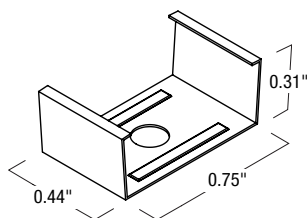
Align clip into the difference grooves in the extruded body of the Lightbar. (2) NAL-245 clips are included with every 6", 12" or 24" Lightbar.



NAL-245: Angled Mounting Clip, Chrome - Set of 2
NAL-245BZ: Angled Mounting Clip, Bronze - Set of 2

Flat Mounting Clip (Set of 2)

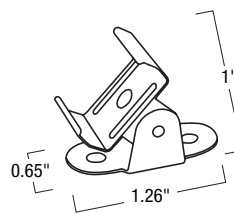
Adjustable aiming of 0°, 10° and 23° is available with the Flat Mounting Clip. (2) NAL-201 clips are included with every 6", 12" or 24" Lightbar.



NAL-201: Flat Mounting Clip, Chrome - Set of 2
NAL-201BZ: Flat Mounting Clip, Bronze - Set of 2

Adjustable Mounting Clip (Set of 2)

Easy flexible aiming. Extends 1" with bar installed at 90°.

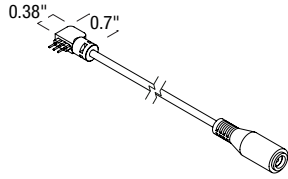


NAL-280BZ: Adjustable Mounting Clip, Bronze - Set of 2
NAL-280C: Adjustable Mounting Clip, Chrome - Set of 2

LED Lightbar Power Feed Interconnectors and Others

90° Power Line Interconnector

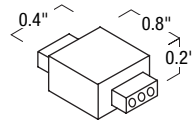
Allows for easy installation in a limited space application. Connects Lightbar run directly to driver.



NAL-207: 90° - 18" Power Line Interconnector
NAL-207/72: 90° - 72" Power Line Interconnector

Mini Coupler

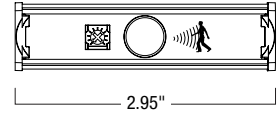
Extends interconnection cables and power line interconnectors.



NAL-220: Mini Coupler

Motion Sensor

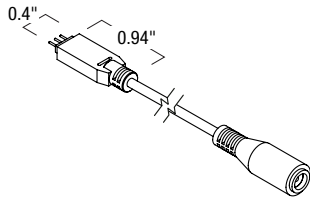
An in-line motion sensor that turns on the power of a run when motion is detected from 4' to 6'. Includes (1) bar to bar joiner, (1) adjustable mounting clip, (1) flat mounting clip, (2) end to end connectors, (1) power line interconnector with switch. **Note:** The included power line interconnector with switch **MUST** be used.



NAL-230A: Motion Sensor, Aluminum
NAL-230BZ: Motion Sensor, Bronze

Power Line Interconnector

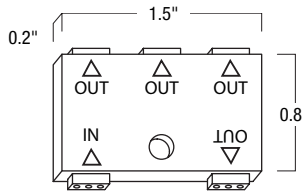
To connect Lightbar run directly to LED Driver.



NAL-208: 20" Power Line Interconnector
NAL-208/72: 72" Power Line Interconnector

Mini Power Feed Splitter

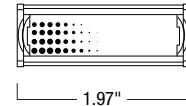
Allows one driver to be split into 4 separate, simultaneous runs. Requires one interconnection cable for each Lightbar.



NAL-221: Mini Power Feed Splitter

Mini Touch Dimmer

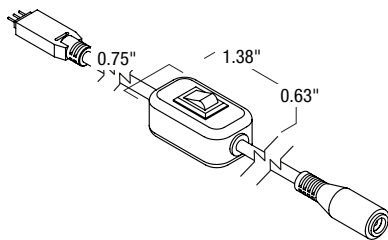
An in-line mini touch dimmer that has multiple functions of dimming and powering the lightbar run on and off. A simple touch on the sensor turns the run on and off, while holding the sensor will dim the light. Includes (1) bar to bar joiner, (1) flat mounting clip, (2) end to end connectors, (1) power line interconnector. **Note:** The included power line interconnector **MUST** be used.



NAL-255A: Mini Touch Dimmer, Aluminum
NAL-255BZ: Mini Touch Dimmer, Bronze

Power Line Interconnector with Switch

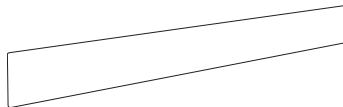
Allows for individual switching on any Lightbar run. Connects Lightbar run directly to LED Driver.



NAL-212: Power Line Interconnector with Switch

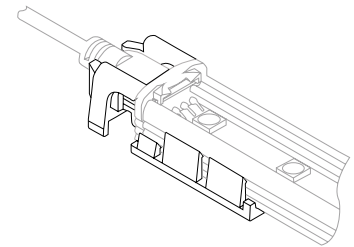
Diffuser Lens

Lens softens the LED image and diffuses the light. The lens is available in all Lightbar lengths and simply attached to Lightbars.



NAL-299/6- 6," Diffuser Lens
NAL-299/12- 12" Diffuser Lens
NAL-299/24- 24" Diffuser Lens
NAL-299/36- 36" Diffuser Lens
NAL-299/48- 48" Diffuser Lens

Connector Retainer Clip

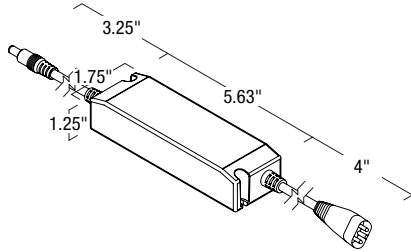


NAL-270: Connector Retainer Clip

LED Lightbar Drivers

30W 24V Class II Hardwire Electronic LED Driver

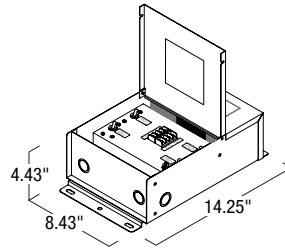
Allows hardwiring Lightbar run by using NUSP-JBox. Can also be converted into direct plug-in driver by using NRA-6035. Requires power line interconnection cable unless used with NAL-250. Non-Dimmable.



NATL-530HW: 24V 30W Class II Hardwire Driver

300W 24V Class II Dimmable Hardwire LED Driver

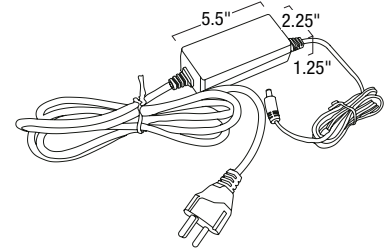
Includes three 100W breakers, which allows hardwiring three Lightbar runs and dimming with Magnetic Low Voltage Dimmer. Includes (3) 10' power line connector (NALTL-10). Requires power line interconnection cable, cannot be used with NAL-250. Manual reset thermal circuit - secondary side. Integral regulator for constant current and voltage. Can be mounted 30' from start of run.



NMT-303/24C2D1: 120V/24V 300W C2 Dimm. Driver

96W 24V Direct Plug-In LED Driver

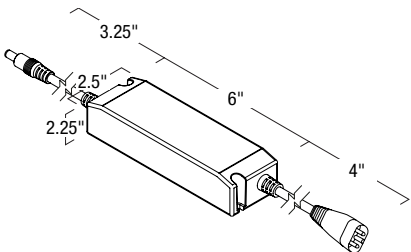
Allows direct connection a wall outlet with 5' cord and plug and 44" power line connector. Requires power line interconnection cable unless used with NAL-250. Non-Dimmable.



NATL-596: 24V 96W Class II Dimmable Driver

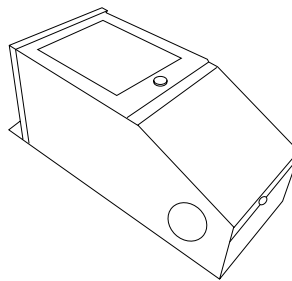
60W 24V Class II Hardwire Electronic LED Driver

Allows hardwiring Lightbar run by using NUSP-JBox. Can also be converted into direct plug-in driver by using NRA-6035. Requires power line interconnection cable unless used with NAL-250. Non-Dimmable.



NATL-560HW: 24V 60W Class II Hardwire Driver

Dimmable Class II Remote Hardwire Magnetic Driver With Integral Regulator for Constant Current and Voltage. Includes NALTL-10 120/277V



NMTD-60/24D -

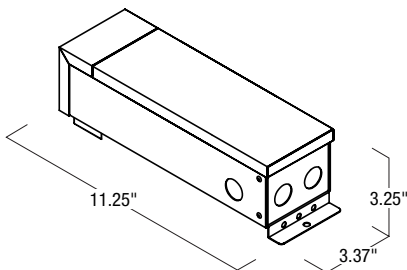
Dimmable Class II Remote Hardware Magnetic Driver (60W)

NMTD-96/24D -

Dimmable Class II Remote Hardware Magnetic Driver (96W)

100W 24V Class II Hardwire Electronic LED Driver

Allows hardwiring Lightbar run. Includes 10' power line connector (NALTL-10). Requires power line interconnection cable unless used with NAL-250. Non-Dimmable.

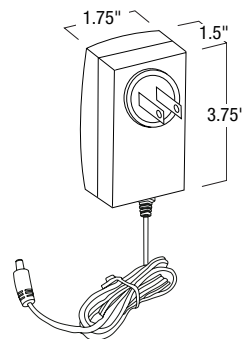


NATL-5060HW: 24V 60W C2 Hardwire Driver

NATL-5100HW: 24V 100W C2 Hardwire Driver

24V Direct Plug-In LED Drivers

Allows direct connection a wall outlet with 6' cord and plug. Requires power line interconnection cable unless used with NAL-250. Non-Dimmable.



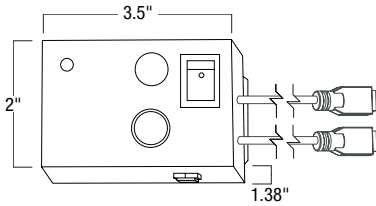
NATL-524: 24V 24W Direct Plug-In LED Driver

NATL-545: 24V 45W Direct Plug-In LED Driver

LED Lightbar Drivers Accessories

Dimmer

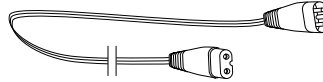
Capable of dimming two separate Lightbar runs simultaneously. 3 Modes: Dimming Mode, Auto-fading Mode, and Flashing Mode. Includes: (1) Dimmer, (2) 6" Interconnection Cables [NAL-206], (2) End to End Connectors [NAL-201], and 6 mounting screws. Not compatible with NMT Series



NAL-250: Dimmer

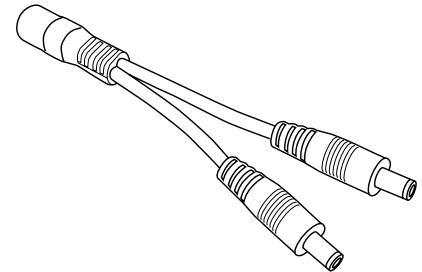
Extension Cord for NATL-530HW or NATL-560HW

Used to extend length between NUSP-JBox and NATL-530HW or NATL-560HW. Can be joined together to create custom lengths.



- NRA-125/6:** 6" Flexible Extension Cord
- NRA-125/12:** 12" Flexible Extension Cord
- NRA-125/18:** 18" Flexible Extension Cord
- NRA-125/72:** 72" Flexible Extension Cord

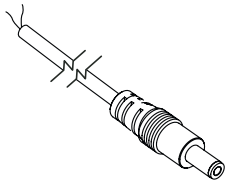
Splitter



NAL-302: 5" Splitter

Replacement Power Line Connector

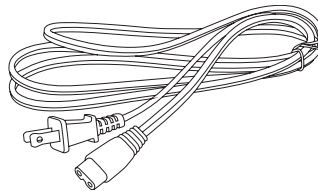
For use with NMT Series and NATL-5100HW. Replaces included 10' lead wire, to allow for 30' or less length between Lightbar run and LED Driver.



- NALTL-10:** 10' 24V Power Line Connector
- NALTL-30:** 30' 24V Power Line Connector

Cord and Plug for NATL-530HW or NATL-560HW

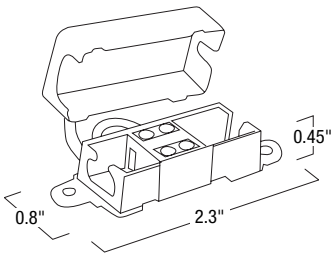
Used to convert NATL-530HW or NATL-560HW into a direct plug-in driver.



- NRA-6035W/6:** 6' Cord and Plug
- NRA-6035W/10:** 10' Cord and Plug

Low Voltage Splice Box

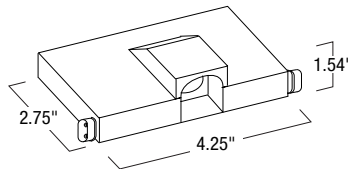
Use to join Romex® low voltage lead to power line connector.



NATL-415: Low Voltage Splice Box

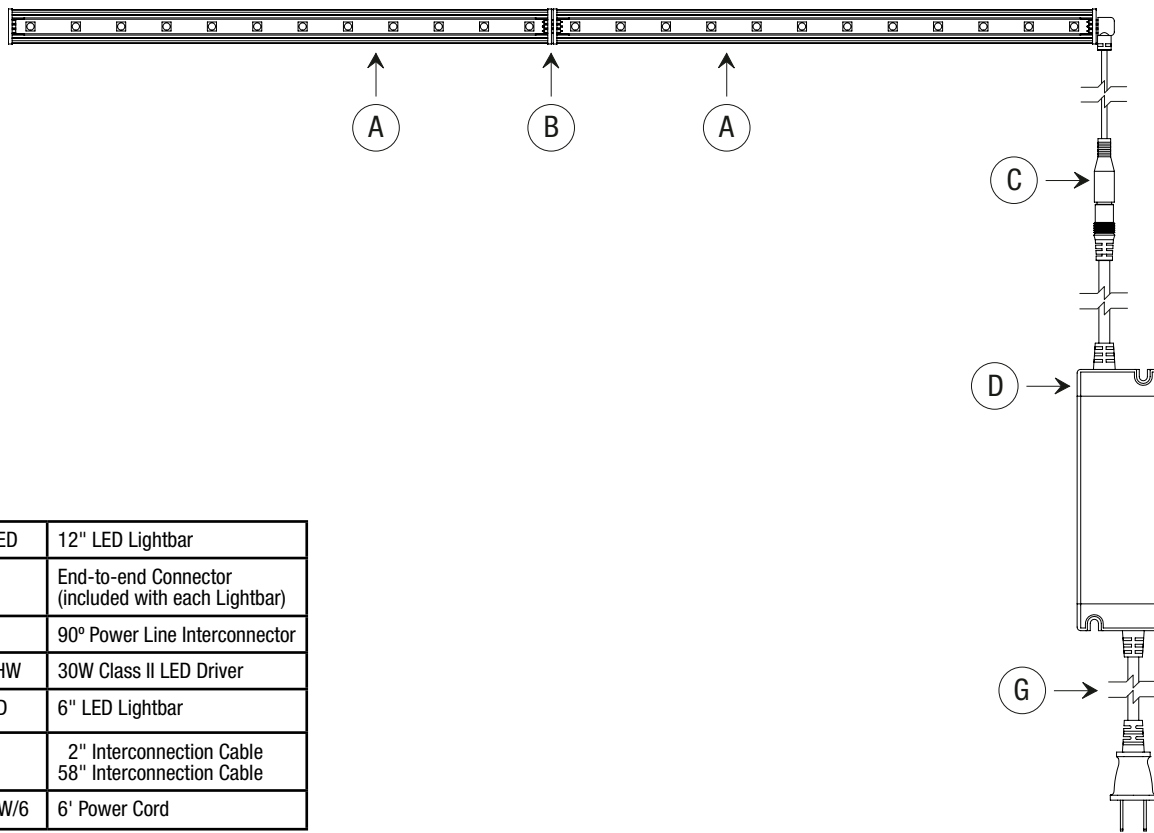
Junction Box for Hardwiring

Required for hardwiring NATL-530HW or NATL-560HW. Can be used to feed to separate runs. Accepts Romex®.



NUSP-JBox: Junction Box for Hardwiring

Suggested Layouts



A.	NULB-12LED	12" LED Lightbar
B.	NAL-200	End-to-end Connector (included with each Lightbar)
C.	NAL-207	90° Power Line Interconnector
D.	NATL-530HW	30W Class II LED Driver
E.	NULB-6LED	6" LED Lightbar
F.	NAL-202 NAL-258	2" Interconnection Cable 58" Interconnection Cable
G.	NRA-6035W/6	6' Power Cord

