SUTPHEN CORPORATION SALES TECHNICAL BULLETIN



WHELEN FREEDOM LIGHT BARS

OVERVIEW

You may have seen at the recent trade shows that Whelen is phasing out the Whelen Freedom LED light bars in favor of their new Freedom IV Series light bars.

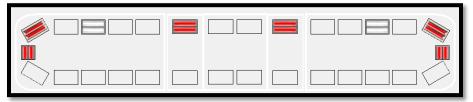
The following pages are a presentation that Whelen has put together to show the features of the new Freedom IV Series.

Some things of importance to note:

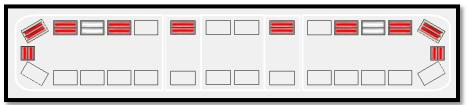
- 1. The height and mounting feet will not change with the new configuration. The Freedom IV is ½" wider (front to back).
- 2. The light bars will be more populated with LEDs due to a change in the mounting of the LED modules. This will get ride of the black "dead space" we have been used to seeing in the previous Freedom Series.
- 3. The new configuration has less joints to provide better sealing.
- 4. The Mini Freedom bars (24" and 28") are both being discontinued. These will be replaced with a 21.5" version (outlined in the following pages).
- 5. The outer lenses on all of the light bars are clear. If your customer desires colored lenses, this will be accomplished with colored filters installed behind the clear lenses (shown in the following pages).

The below layouts show how the current configurator/SQS2 options correlate to the new Freedom IV layouts.

Freedom IV 72" 8-Module:



Freedom IV 72" 12-Module (notice the additional "dead spaces" that were not present with the former Freedom 12 bar):



Created: 12/4/2015 Bv: Clark Green

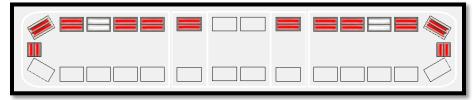
Revised: 2/9/2016

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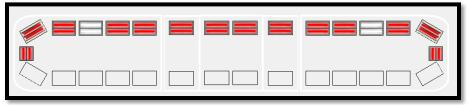


WHELEN FREEDOM LIGHT BARS

Freedom IV 72" 14-Module:



Freedom IV 72" 16-Module (fully populated – CANNOT have built-in LED Opticom with this bar):



Any "blank" or "dead" spaces will receive an aluminum plate filling those voids as shown below:



We are working to get these options updated in our configurator/SQS2 as quickly as possible.

Until these are implemented in the configurator, please use the following prices to add additional LED modules to the main light bars:

Upgrade Freedom 12 option to Freedom IV 14-module = Add \$355.50 Upgrade Freedom 12 option to Freedom IV 16-module = Add \$711.00

If you have any questions about the new light bars or configurations, please contact your Sales Application Engineer, your local Whelen representative, or we can put you in touch with our OEM representative at Whelen.

Created: 12/4/2015 By: Clark Green

Revised: 2/9/2016



WHELEN®

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Refer to published product bulletins for specifications.

Origins of the Freedom® Lightbar



Based on the Original Edge[®] Ultra[™] Strobe
 Series



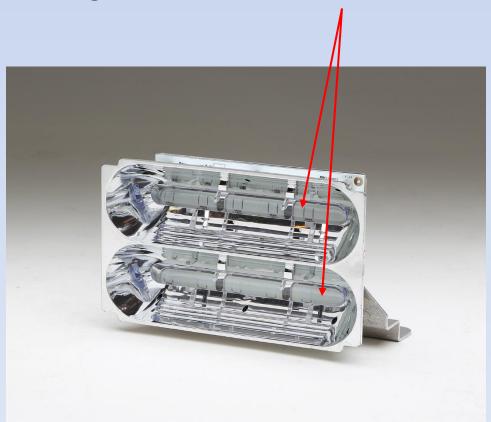


- Replaces Freedom and Freedom II Series
- Low Current or WeCAN® input control
- Features and options typical of the Freedom Series
- DYAD™ modules available in single or two color
- Center options, i.e. Traffic Pre-Emption, Lighted Signs



Freedom® IV Glossary of Terms

DYAD – Something that consists of two elements or parts





Freedom[®]





- ½ inch wider, same height
- Corner lights blend together for improved performance



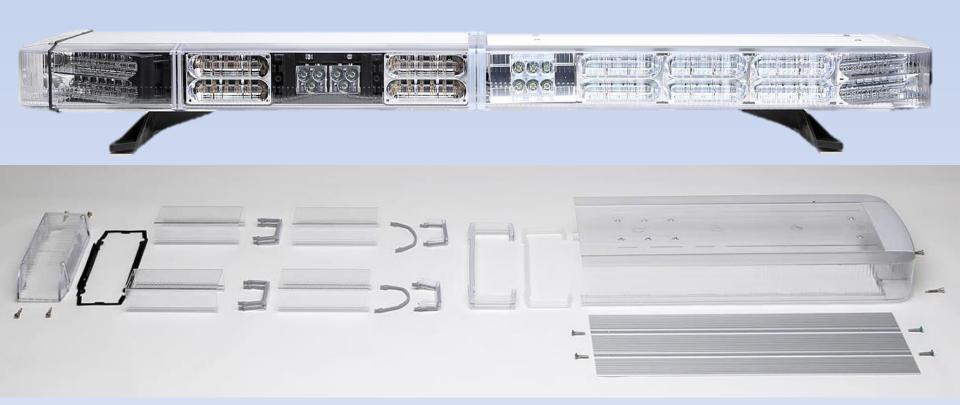
Freedom[®]



- Similar configurations as the original Freedom Series
- Same exterior height
- Contiguous lighting due to the removal of lighthead mounting brackets provides a uniformed look
- Increase in the number of inboard modules allows for higher performance



Freedom®



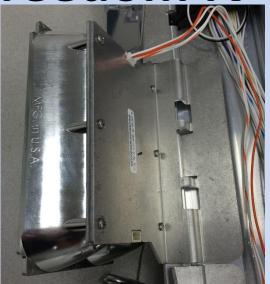
- Original Series has multiple Sealing Points
- New Silicone Divider Linear Injection Molded Gasket Divider Freedom Series
- One T-25 screw bit required for removal

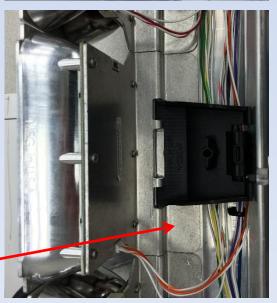


Freedom®



- Freedom lighthead mounts with plastic lighthead Bracket
- Freedom IV lightheads transfer heat via the aluminum mounting bracket to the extrusion







Freedom® IV Take-down Options



 F4TL6 – Full Take-Down with 6 LEDs



 F4TS3 – Single row half Take-Down with 3 LEDs



 F4TS6 – Half Take-Down with 6 LEDs



Freedom® IV Alleylight Options

 F4A6 - Dual row with 6 LEDs



 F4A3 – Single row with 3 LEDs



 F4WA* - End warning / Alley combination with 6 LEDs



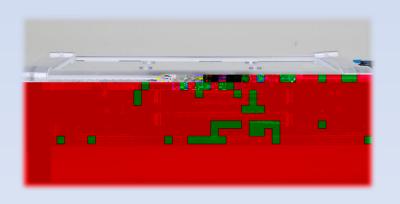


Freedom® IV Center Options

(Liberty II shown for reference)



- 795H GTT LED Emitter
- F4795HT LED Emitter with two vertical LED take-down modules



- F4500S Strobe Tube*
- F4500ST Strobe Tube* with two vertical LED take-down modules
- Includes 3/c strobe cable to attach to customer supplied remote power supply



Freedom® IV Inboard Warning Options

F4DL* - Long module with
 12 LEDs

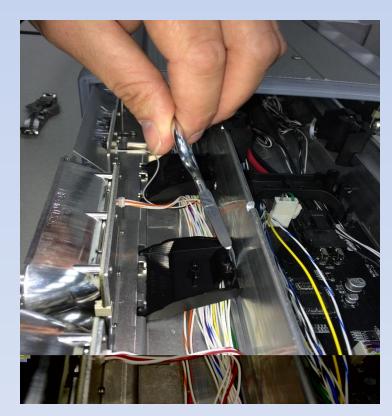


 F4DS* - Short module with 6 LEDs

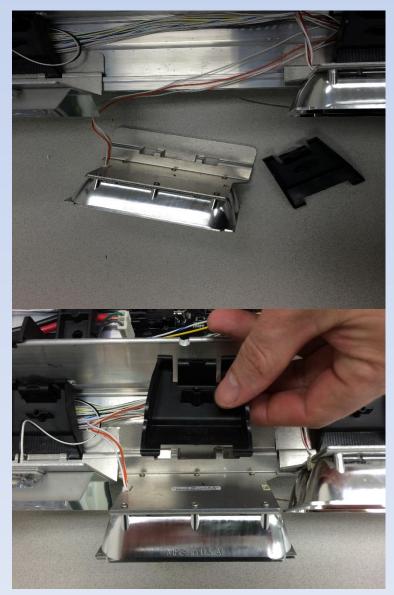




Freedom® IV Lighthead Removal



- Use a paint can opener with a hook on the end to lightly pry the tab
- For assembly, just press into place





Freedom® IV Inner Filter Options*

(Liberty II shown for reference)

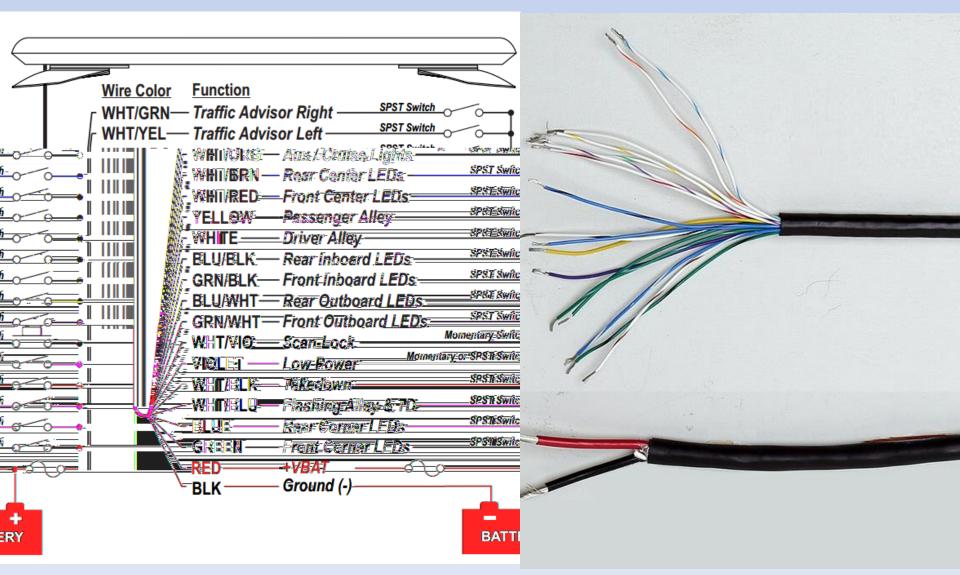


- F4LF* Long Inboard Filter
- F4SF* Short Inboard Filter

F4CF* - Corner Inner Filter



Freedom® IV Low Current Control

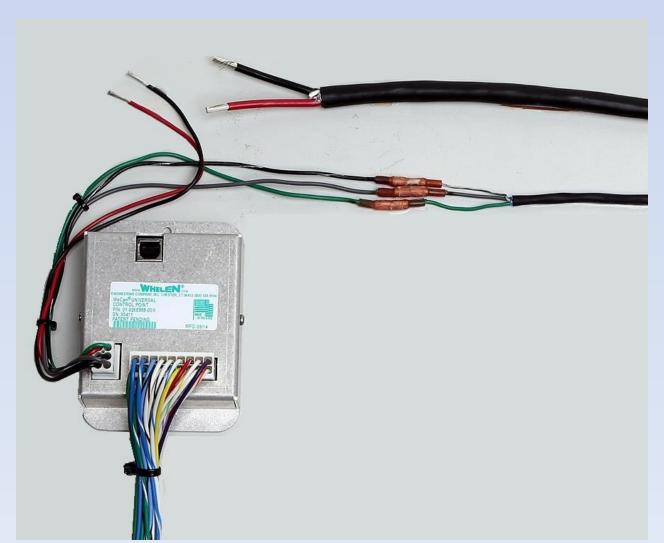


- 17 conductor function select cable
- 2 conductor power cable

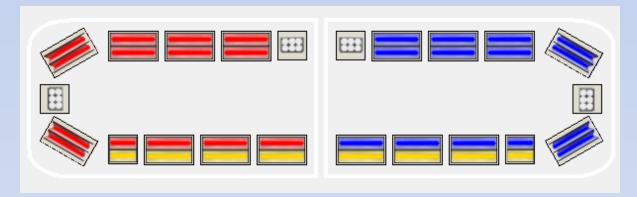


WeCan®

- 18 input lines, 12 volt low current control
- Two Wire communications up to the lightbar
- Emulates LC Series out of the box



Freedom® IV Inboard Modules



44" models: 6 long and 2 short inboard Linear-LED® modules



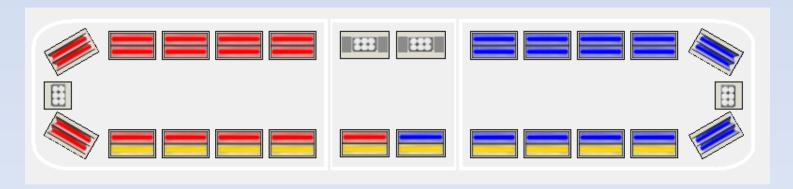
49" models: 8 long Inboard Linear-LED modules



Freedom® IV Inboard Modules



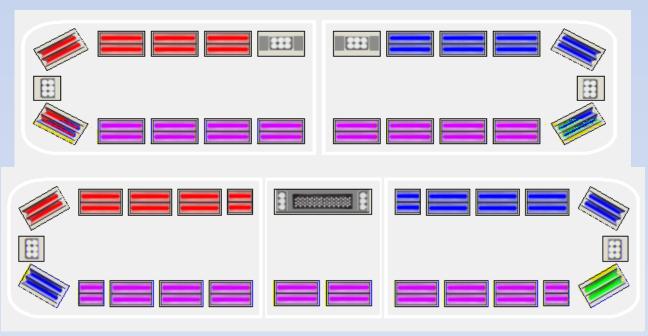
55" models: 8 long and 2 short Inboard Linear-LED® modules



60" models: 10 long inboard Linear-LED modules



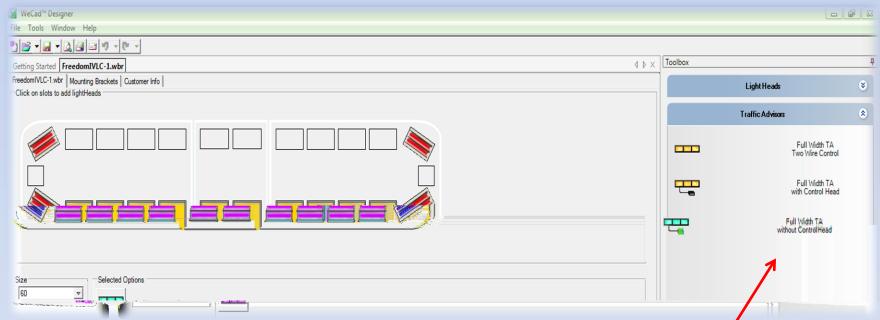
Freedom® IV LC Control



- Low Current 17 conductor switch cable
- 2 conductor 10 awg power and ground cable
- Features single color DYAD™ corner modules only
- Single color Inboard DYAD modules only F4DL*(long) or F4DS*(short)
- Optional Photocell available (F4XPHOTO)



Freedom® IV LC Control



- F4X4 44½ ", F4X8 49 ¼", F4X2 55", F4X0 60", F4X7 72", F4X1 81", F4X9 91¾", F4X5 97½"
- Longer lengths are being added to WeCAD in the near future, but will not be included on the initial release
- Single color Traffic Advisor™ only
- Integral Traffic Advisor (two wire control)
- F4XTACNTL 9-wire cable Traffic Advisor w/TACTLD1 control head
- F4XTACBL 9-wire cable Traffic Advisor, no control head

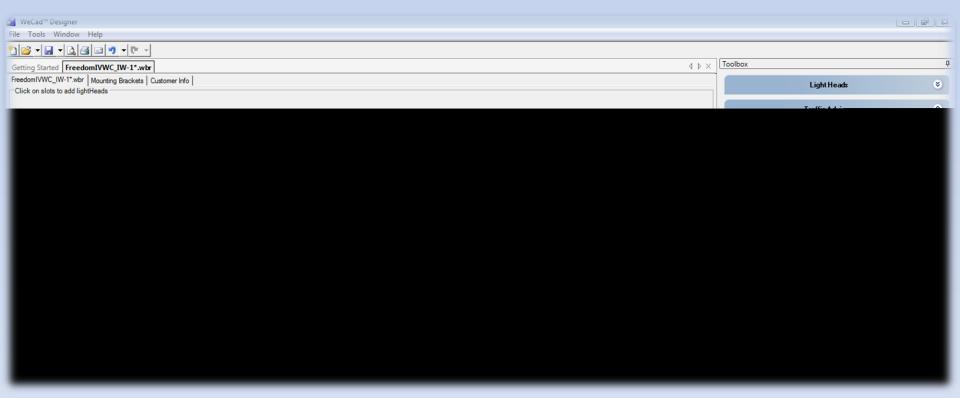
Freedom® IV WeCan®



- WeCan programmable Control, 8 awg power/ground
- Four high intensity corner DYAD™ modules
- Single or two color DYAD modules
- Optional Photocell



Freedom® IV WeCan®



- F4W4 43 ½", F4W8 49¼", F4W2 53", F4W0 60", F4W7 72", F4W1 81", F4W9 91¾", F4W5 97½"
- Optional single two color DYAD™ Traffic Advisor™



MINI Freedom® IV DYAD



- Permanent Mount F4M****P (shown)
- Front Facing F4M*0*0F
- Length 21.5"



MINI Freedom® IV DYAD Options

- F4DL* Long module
- F4MA3 Two 3 LED Super-LED® Alley lights includes harness
- F4MA6 Two 6 LED Super-LED Alley lights includes harness
- F4MTL6 Two 6 LED Super-LED Long Take-Down lights includes harness
- F4MTATL3 Two 3 LED Super-LED Alley lights and Two 6 LED Super-LED Long Take-Down lights includes harness
- F4MTATL6 Two 6 LED Super-LED Alley lights and Two 6 LED Super-LED Long Take-Down lights includes harness



Freedom[®] IV NFPA models



- All models standard with minimum amount of modules required to meet NFPA 1901 2009 Edition
- WeCad allows for additional modules. (shown)
- V-End lamp configuration and Squared end configurations
- LC Low Current control
- Clear outer lenses standard



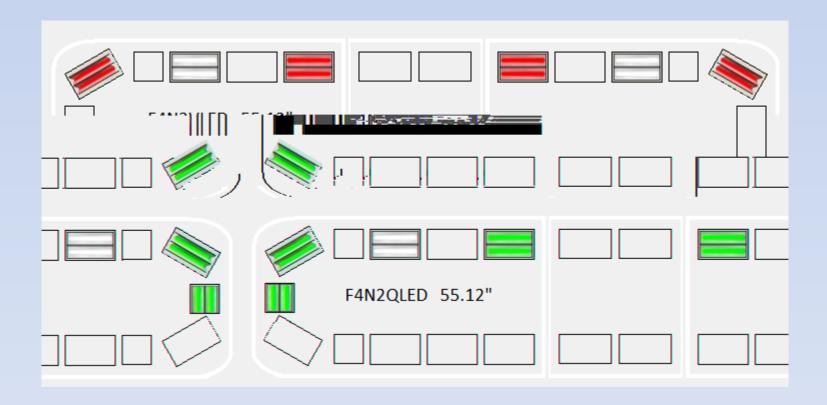
MINI NFPA Freedom® IV 21.5"



Includes minimum lamps required to meet NFPA 1901



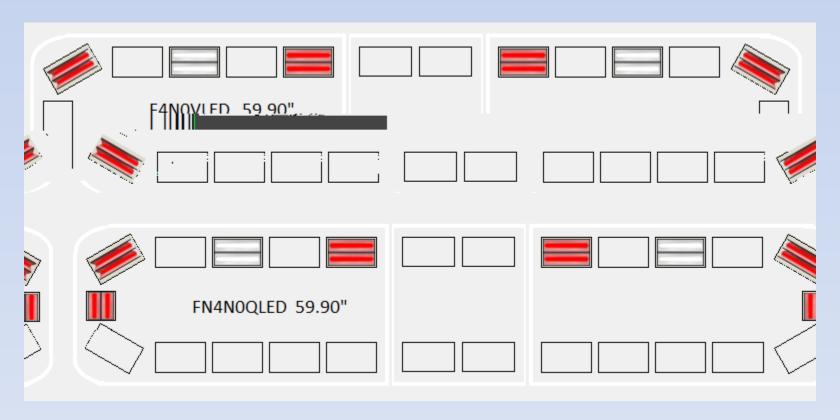
NFPA Freedom® IV 55"



- Includes minimum lamps required to meet NFPA 1901
- Customer may specify more lightheads



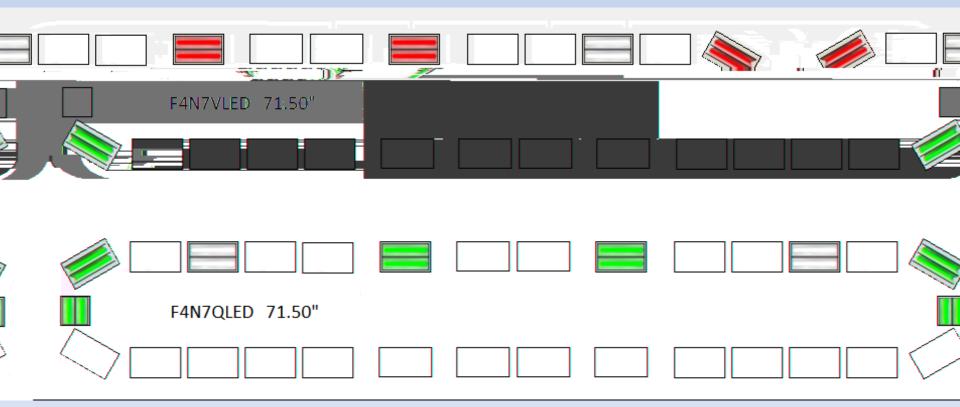
NFPA Freedom® IV 60"



- Includes minimum lamps required to meet NFPA 1901
- Customer may specify more lightheads



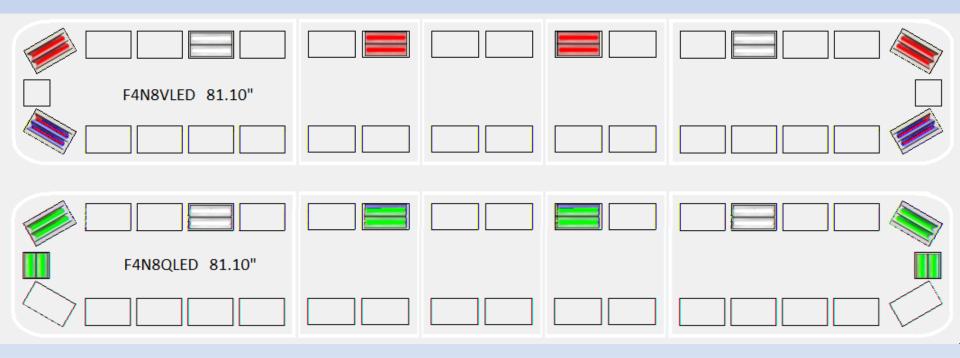
NFPA Freedom® IV 72"



- Includes minimum lamps required to meet NFPA 1901
- Customer may specify more lightheads



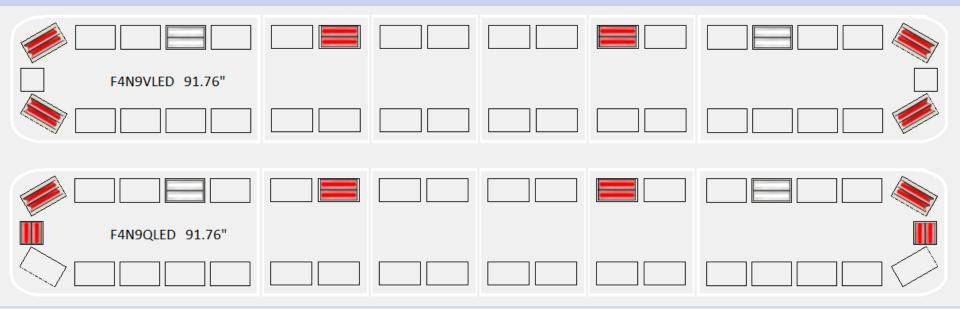
NFPA Freedom® IV 81"



- Includes minimum lamps required to meet NFPA 1901
- Customer may specify more lightheads



NFPA Freedom® IV 92"



- Includes minimum lamps required to meet NFPA 1901
- Customer may specify more lightheads

