



TOMAR
OFF-ROAD LIGHTING



CREE 
LEDs

TOMAR
OFF-ROAD LIGHTING

TRX SERIES

Off-Road LED Lightbar System

Extreme Performance Lighting designed with the off-road enthusiast in mind

TOMAR OFF-ROAD, a division of TOMAR Electronics, Inc., is an innovator and leading manufacturer of high quality, highly reliable and extremely efficient LED and strobe light systems with over 47 years experience in the explosion-proof, heavy industry and emergency vehicle markets.

Now TOMAR brings its years of experience to the Off-Road lighting market. The TRX series off-road LED lightbars set a new standard in performance, configurability and maintainability. All TOMAR products are designed, engineered, assembled and serviced in our state of the art, ENERGY STAR® certified factory located in Gilbert, Arizona, USA.

Here are a few of the unique features of Tomar's TRX series lighting system:

- Low current switching eliminates the need for relays
- Dimming capability
- Field-interchangeable lamp modules for customizable beam spread
- True amber/white dual color modules
- Individual activation of spot and flood modules in the same lightbar
- Individual activation of required running lights on properly configured models
- Designed to eliminate wind noise
- SOS distress flash pattern
- Available Lengths: 3", 6", 10", 15", 20", 25", 30", 35", 40", 45", 50", 60"





Water and Dust-Proof, the TRX series lightbars are rated IP-68 and IP-69K. Each component of the TRX lightbar is individually waterproofed eliminating the need for a failure-prone external gasket. Each light module is hermetically sealed using linear vibration welding and a patented over-molded heat extraction technology. The internal control module is completely encapsulated in a urethane potting. Deutsch waterproof connectors are used for all external wire interconnects.

Internal Controller - The internal controller provides power and control functionality to all lamp modules. Low current input lines means no additional relays are required. Up to five unique features can be activated with no additional hardware needed. Additionally, the controller provides a DC voltage feed to power all switches used to operate the lightbar.



Multiple Color Modules - True amber/white dual color modules mean you don't have to sacrifice white light intensity to have full amber capability. The TRX internal controller lets you change the lightbar from white to amber with the flip of a switch.

Dual Pattern Activation - When running a TRX lightbar with two beam patterns the internal controller allows independent control of each beam pattern. No additional hardware to buy or install.

Running light override - For those situations where a white light is required to the front at all times, switching the lightbar to all amber could mean trouble. The TRX internal controller provides an override setting that forces one lamp module to remain white while the others switch to amber.



Multiple Function Lightbars - The TRX series lightbars have the flexibility to adapt to any situation. Whether the situation requires steady amber lights, flashing amber lights, blue lights, stop/tail lights or turn signal lights the TRX series lightbars have it covered.

Dimming - All 20" and longer lightbars have built in dimming capability. With the flip of a switch the internal controller reduces the light output by 50%. The dim setting has no effect on stop/tail lamps or turn signal lamps.

TRX SERIES

TRX SERIES

Modular Design

In addition to making the TRX the most maintainable lightbar on the market the individually replaceable lamp modules make changing beam angles in the field a snap. Replacing a lamp module can be done in less than one minute by simply removing two screws, disconnecting the lamp at the waterproof connector and plugging in a new lamp. The basic building blocks of the TRX lightbar are 3" and 6" lamp modules. Lamp modules are available in the following configurations:

3" SPOT
11° Beam Angle
3 Cree® XPG2 White LEDs
or 3 Cree® XPE Amber LEDs



3" FLOOD
85° Beam Angle
3 Cree® XPG2 White LEDs
or 3 Cree® XPE Amber LEDs



3" COMPOSITE
20° Beam Angle
3 Cree® XPG2 White LEDs
3 Cree® XPE Amber LEDs
Or 3 IR LEDs



6" SPOT - WHITE
6.5° Beam Angle
3 Cree® XP-L LEDs



6" FLOOD - WHITE
85° Beam Angle
3 Cree® XP-L LEDs



6" COMPOSITE - WHITE
20° Beam Angle
3 Cree® XP-L LEDs



6" FLOOD - AMBER/WHITE
120°/85° Beam Angle
6 Cree® XQ-E, 3 Cree® XP-L LEDs



6" WARNING
SAE-J595, CCR 13 Compliant
6 Cree® XBD LEDs
Amber, Blue, Red or Green



With the TRX series modular lightbar you can combine lamp modules of different beam angles for a light that is custom fit to your needs. The TRX Series can easily be configured to meet the UTV Racing Association requirements for race lights with two tail/ brake lights, two amber lights; one flashing amber, one steady amber and a steady blue light.

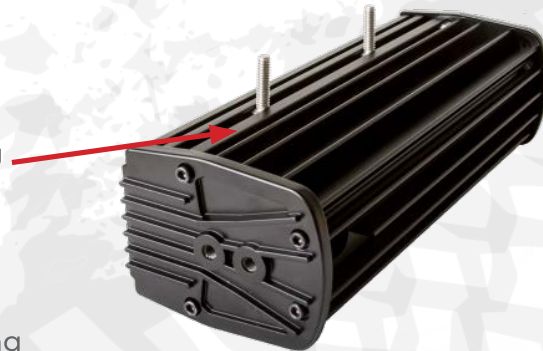


TRX SERIES

Mounting Brackets

The universal mounting brackets, supplied standard with each lightbar, are ideal for mounting the lightbar on flat surfaces. All TRX brackets feature a two bolt system that allows you to adjust the angle of the lightbar then lock it in place. This effectively eliminates the problem of lamps dropping out of position while traversing rough terrain.

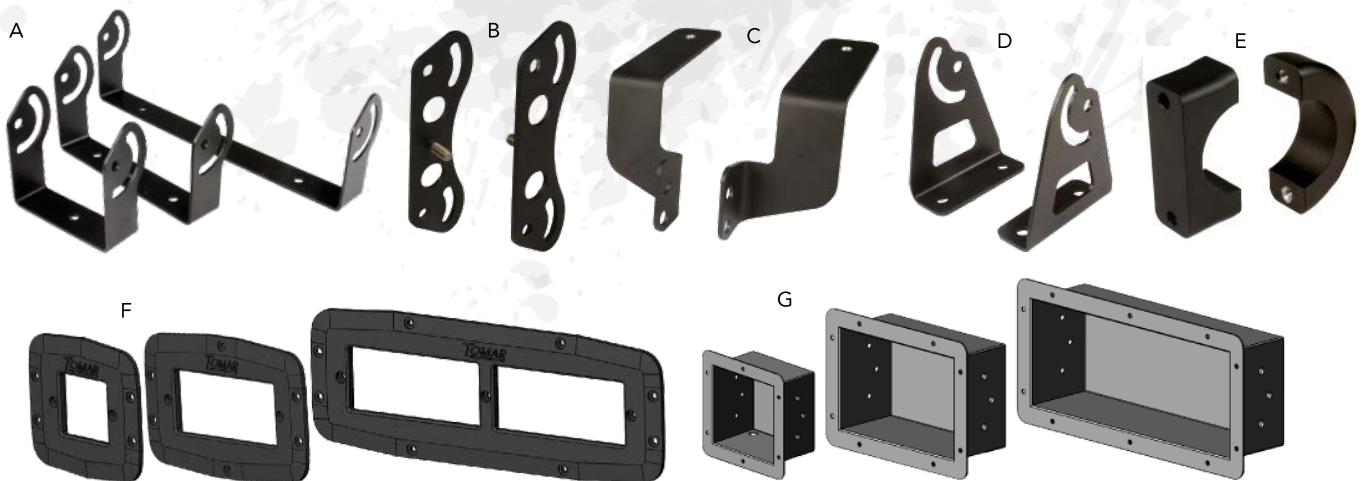
Bottom channel will accept 1/4 inch hex bolt for mounting lightbar without brackets



Tomar's TRX Series Mounting Brackets allow you to adapt the lightbar to multiple configurations. Vehicle-specific mounting options are being added all the time, contact us for specific application options.



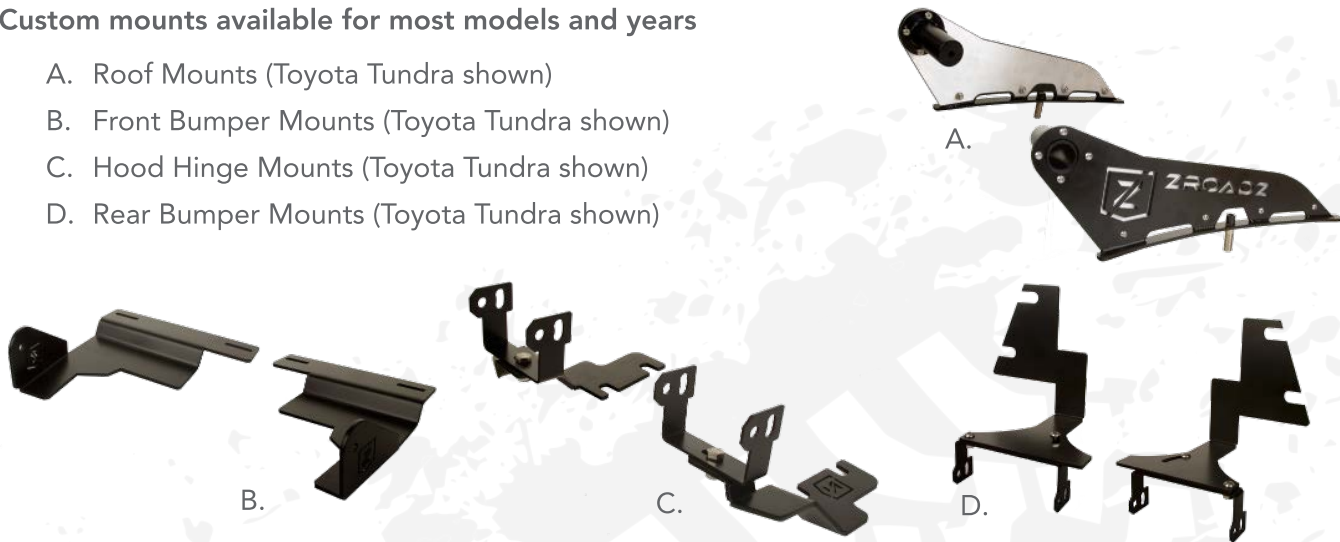
- A. Single Lightbar U Mount Brkt 3" 6" 10"
- B. Dual Lightbar Mount Brkt
- C. Vehicle Specific Hood Mount
- D. Universal Mount
- E. 1.75 Tube Mount
- F. Flange Mount 3" 6" 10"
- G. Recess Mount Enclosure 3" 6" 10"



TRX SERIES

Custom mounts available for most models and years

- A. Roof Mounts (Toyota Tundra shown)
- B. Front Bumper Mounts (Toyota Tundra shown)
- C. Hood Hinge Mounts (Toyota Tundra shown)
- D. Rear Bumper Mounts (Toyota Tundra shown)



Custom Grills available for most models and years



(Chevy Tahoe shown)

(Toyota Tundra shown)

Additional LED Lighting

UC-LED ultra-high intensity underbody Rock LEDs allow you to light up the ground under and around your vehicle.

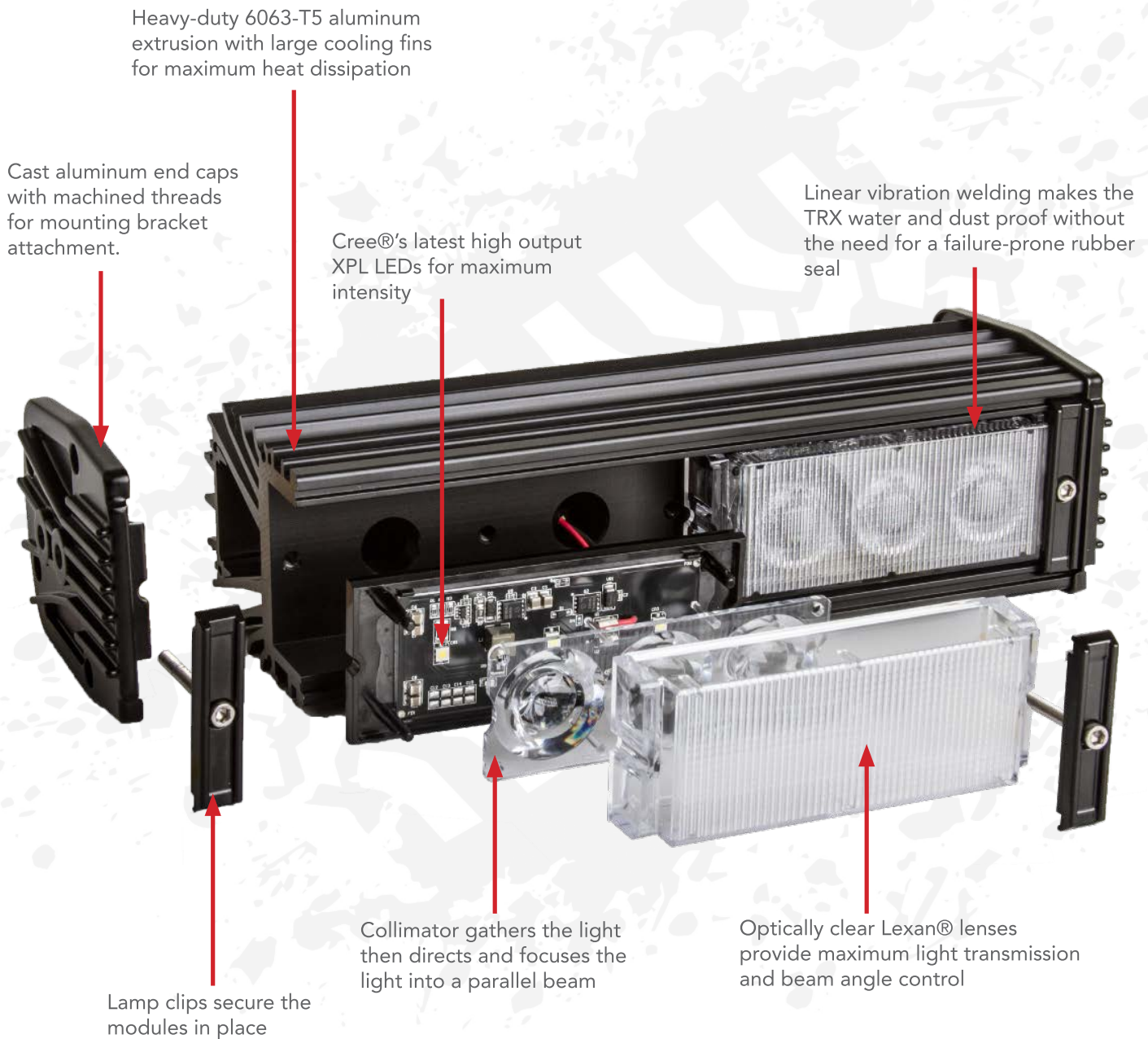


LEDs available in White, Red, Amber, Blue and Green

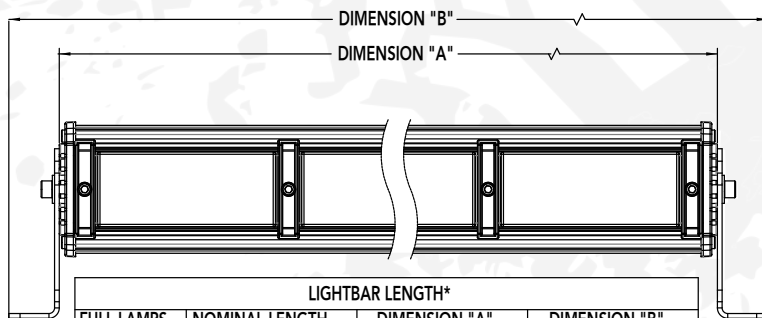
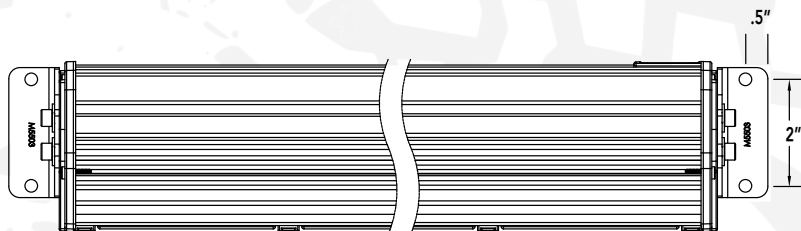
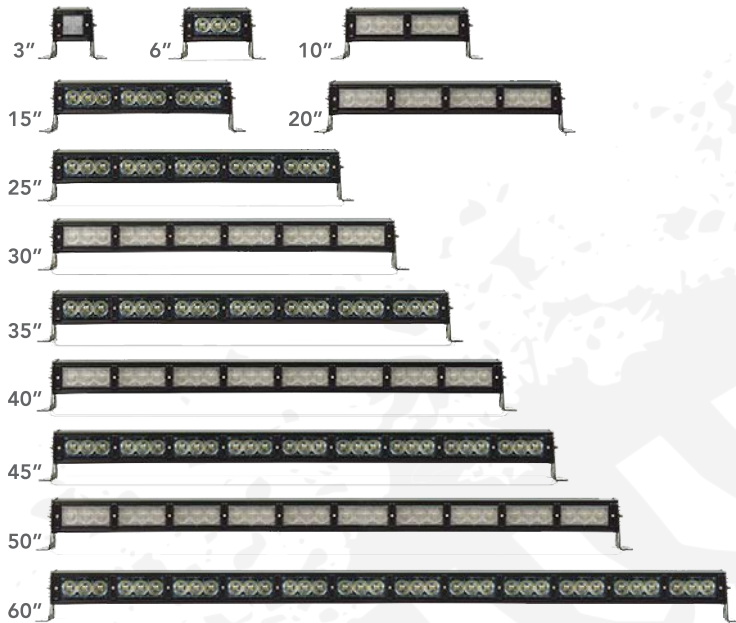
UC-LED Kit includes 4 lights and 4 bezels

TRX SERIES

All TRX lamp modules are interchangeable and can be used in any position on the lightbar. This offers the flexibility to configure a lightbar for any mission with perfect balance of flood, spot or dual color amber/white modules.

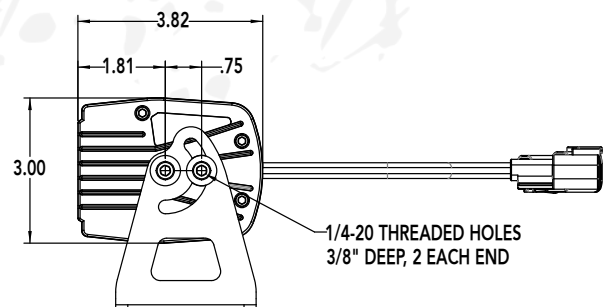
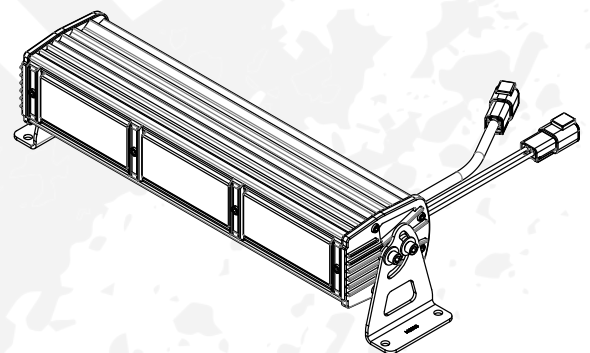


TRX SERIES



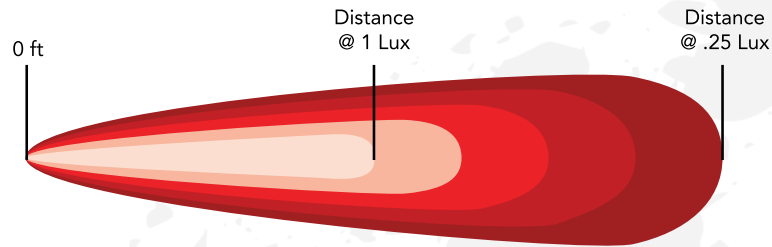
LIGHTBAR LENGTH*			
FULL LAMPS	NOMINAL LENGTH	DIMENSION "A"	DIMENSION "B"
.5	3"	3.4	5.7
1	6"	5.7	7.9
2	10"	10.2	12.5
3	15"	14.8	17.0
4	20"	19.3	21.6
5	25"	23.9	26.1
6	30"	28.4	30.7
7	35"	32.9	35.2
8	40"	37.5	39.8
9	45"	42.0	44.3
10	50"	46.6	48.9
12	60"	55.7	58.0

*For reference only. Dimensional CAD models are available.

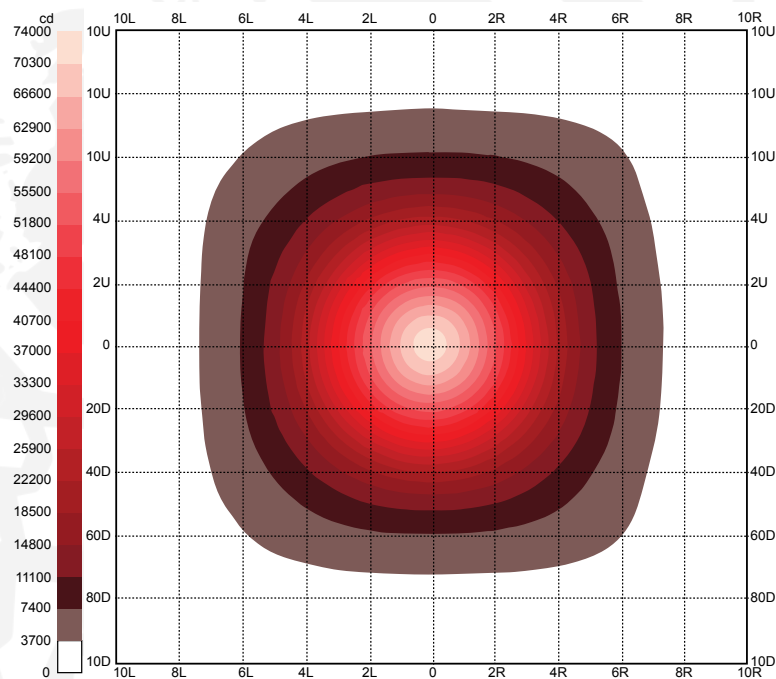


TRX SERIES

Beam Patterns



6.5° FWHM Beam Angle TRXF-LW-S

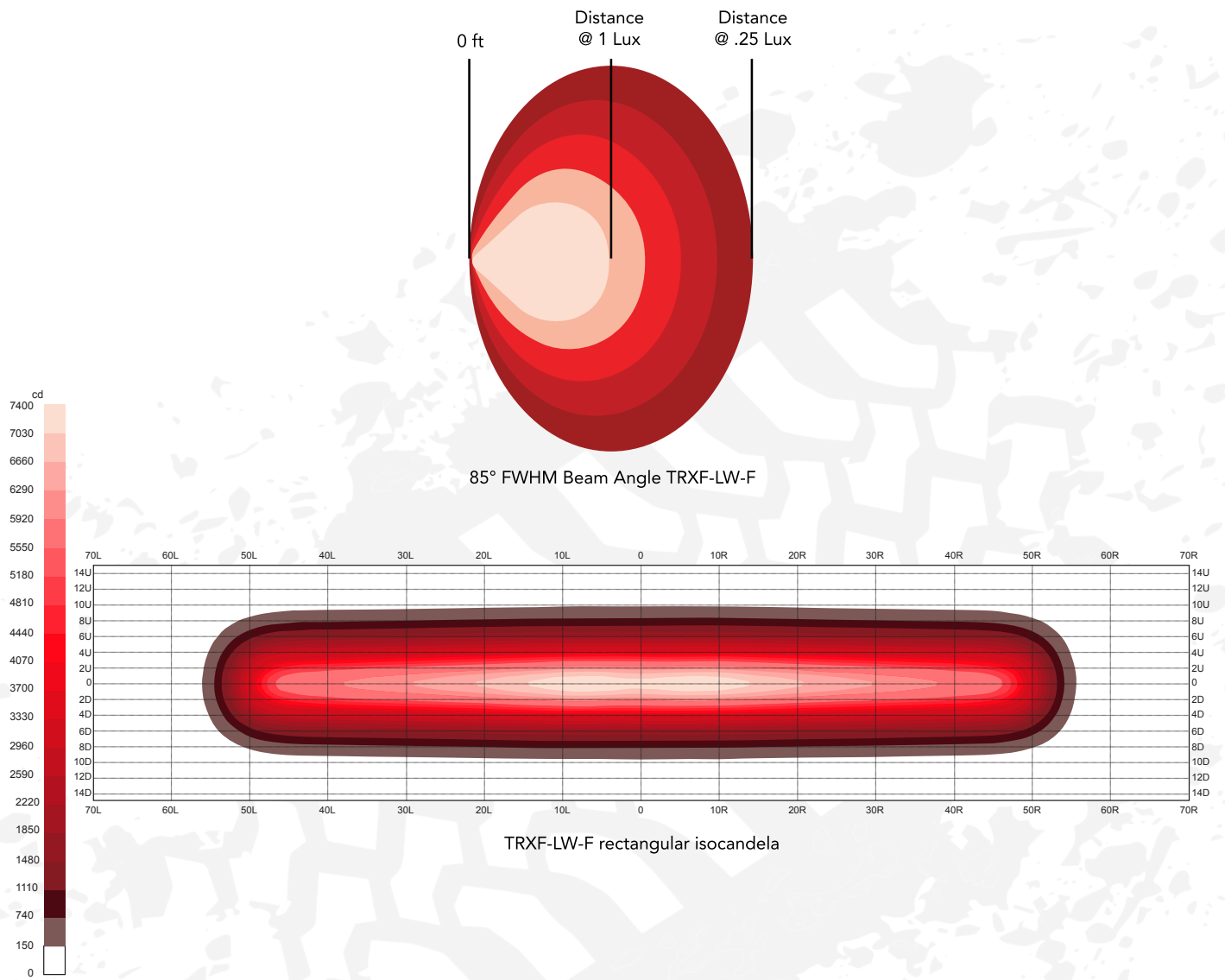


TRXF-LW-S rectangular isocandela

Spot

PART NUMBER	LENTH (IN)	# OF LAMPS	# OF LEDS	WATTS	AMPS	RAW LUMENS	BEAM PATTERN	DISTANCE @ 1 Lux Meters/Feet	DISTANCE @ .25 Lux Meters/Feet	PEAK BEAM CANDELA
TRX-03X-S	3.41	1	3	16.6	1.2	1500	11° FWHM	155/509	310/1019	24100
TRX-06X-S	5.68	1	3	29.9	2.1	2760	6.5° FWHM	268/880	537/1761	72000
TRX-10X-S	10.23	2	6	58.0	4.2	5520	6.5° FWHM	379/1245	75924/90	144000
TRX-15X-S	14.78	3	9	86.9	6.3	8280	6.5° FWHM	465/1525	930/3050	216000
TRX-20X-S	19.33	4	12	115.9	8.4	11040	6.5° FWHM	537/1761	1073/3521	288000
TRX-25X-S	23.88	5	15	145.0	10.5	13800	6.5° FWHM	600/1968	1200/3927	360000
TRX-30X-S	28.43	6	18	173.9	12.6	16560	6.5° FWHM	657/2156	1315/4313	432000
TRX-35X-S	32.98	7	21	202.9	14.7	19320	6.5° FWHM	710/2329	1420/4658	504000
TRX-40X-S	37.53	8	24	231.8	16.8	22080	6.5° FWHM	759/2490	1518/4980	576000
TRX-45X-S	42.08	9	27	260.8	18.9	24840	6.5° FWHM	805/2641	1610/5282	648000
TRX-50X-S	46.53	10	30	289.8	21.0	27600	6.5° FWHM	849/2784	1697/5568	720000
TRX-60X-S	55.73	12	36	347.8	25.2	33120	6.5° FWHM	930/3050	1859/6099	846000

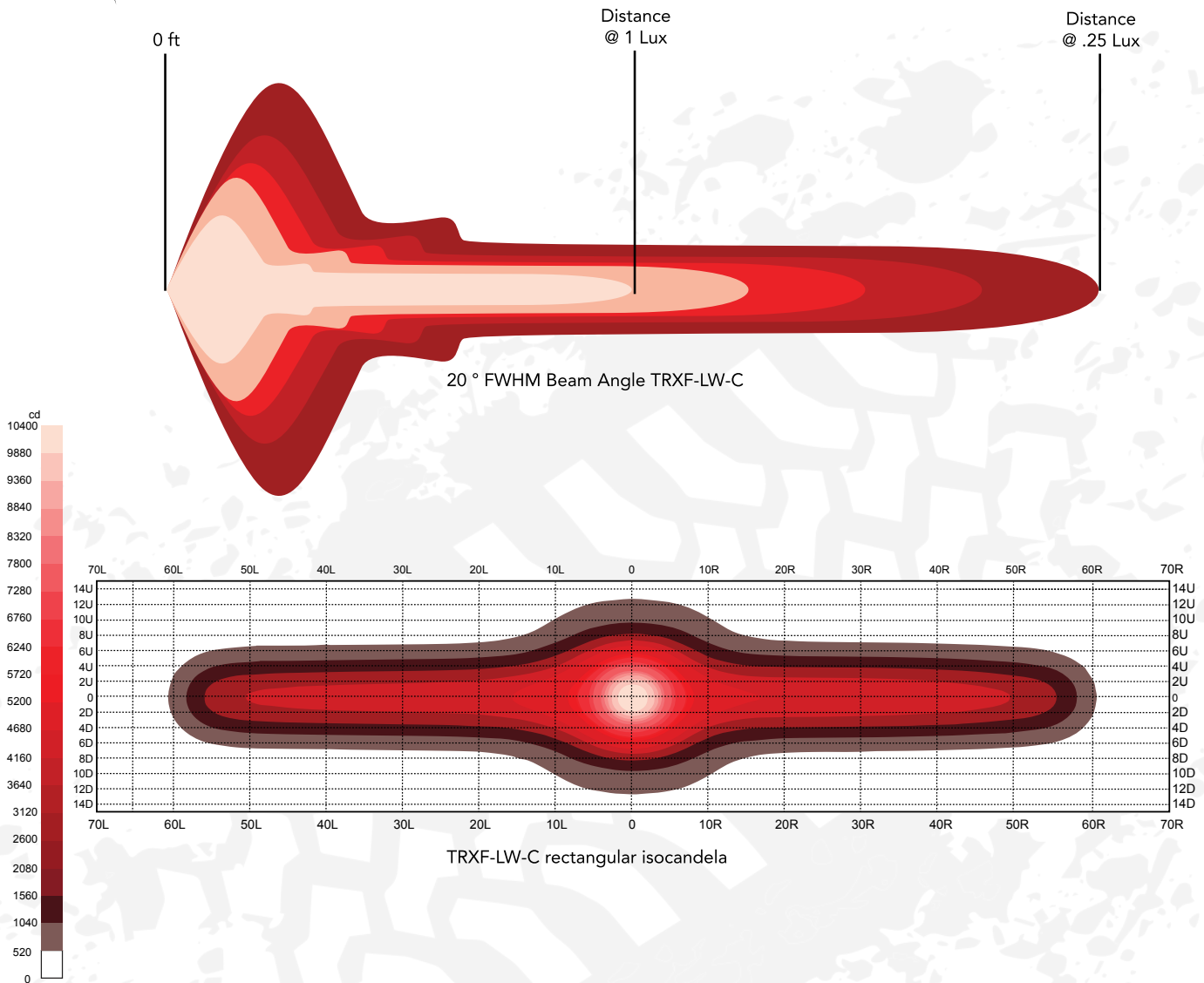
TRX SERIES



Flood

PART NUMBER	LENTH (IN)	# OF LAMPS	# OF LEDS	WATTS	AMPS	RAW LUMENS	BEAM PATTERN	DISTANCE @ 1 Lux Meters/Feet	DISTANCE @ .25 Lux Meters/Feet	PEAK BEAM CANDELA
TRX-03X-F	3.41	1	3	16.6	1.2	1500	85° FWHM	54/176	107/352	2880
TRX-06X-F	5.68	1	3	29.9	2.1	2760	85° FWHM	86/281	172/563	7360
TRX-10X-F	10.23	2	6	58.0	4.2	5520	85° FWHM	121/398	243/796	14720
TRX-15X-F	14.78	3	9	86.9	6.3	8280	85° FWHM	149/488	297/975	22080
TRX-20X-F	19.33	4	12	115.9	8.4	11040	85° FWHM	172/563	343/1126	29440
TRX-25X-F	23.88	5	15	145.0	10.5	13800	85° FWHM	192/343	384/1259	36800
TRX-30X-F	28.43	6	18	173.9	12.6	16560	85° FWHM	210/689	420/1379	44160
TRX-35X-F	32.98	7	21	202.9	14.7	19320	85° FWHM	227/745	454/1489	51520
TRX-40X-F	37.53	8	24	231.8	16.8	22080	85° FWHM	243/796	485/1592	58880
TRX-45X-F	42.08	9	27	260.8	18.9	24840	85° FWHM	257/844	515/1689	66240
TRX-50X-F	46.53	10	30	289.8	21.0	27600	85° FWHM	271/890	543/1780	73600
TRX-60X-F	55.73	12	36	347.8	25.2	33120	85° FWHM	297/975	594/1950	88320

TRX SERIES



Comp

PART NUMBER	LENTH (IN)	# OF LAMPS	# OF LEDS	WATTS	AMPS	RAW LUMENS	BEAM PATTERN	DISTANCE @ 1 Lux Meters/Feet	DISTANCE @ .25 Lux Meters/Feet	PEAK BEAM CANDELA
TRX-06X-C	5.68	1	3	29.0	2.1	2760	20° FWHM	101/331	201/659	10100
TRX-10X-C	10.23	2	6	58.0	4.2	5520	20° FWHM	142/466	284/933	20200
TRX-15X-C	14.78	3	9	86.9	6.3	8280	20° FWHM	174/571	348/1142	30300
TRX-20X-C	19.33	4	12	115.9	8.4	11040	20° FWHM	201/659	402/1319	40400
TRX-25X-C	23.88	5	15	145.0	10.5	13800	20° FWHM	225/737	449/1475	50500
TRX-30X-C	28.43	6	18	173.9	12.6	16560	20° FWHM	246/808	492/1615	60600
TRX-35X-C	32.98	7	21	202.9	14.7	19320	20° FWHM	266/872	532/1645	70700
TRX-40X-C	37.53	8	24	231.8	16.8	22080	20° FWHM	284/933	569/1865	80800
TRX-45X-C	42.08	9	27	260.8	18.9	24840	20° FWHM	301/989	603/1978	90900
TRX-50X-C	46.53	10	30	289.8	21.0	27600	20° FWHM	318/1043	636/2085	101000
TRX-60X-C	55.73	12	36	347.8	25.2	33120	20° FWHM	348/1142	696/2284	121200

TRX SERIES

Extreme Performance

- Input Voltage: The standard TRX series operates on 12Vdc - 24Vdc. 36Vdc - 48Vdc versions also available. TRT Models 12Vdc only.
- Operating Temperature: -40°C to +60°C.
- Waterproof - IP68 and IP69K rated, immersion tested to 9 meters.
- Cree® XP-L LED's with L70 lifetime >36,300 Hours.
- Salt-Fog Tested for corrosion resistance.
- SAE-J575 Vibration Tested.
- EMI/RFI protected.
- Reverse polarity protected.



(Example based on a single TRXF-LW-S)

Peak Beam Intensity

- The maximum luminous intensity typically along the central axis of a cone of light.
- This measures the brightest part of the beam. The value is reported in candela and does not change with distance.

Beam Distance

- The distance from the device at which the light beam is 0.25 lux. Results are reported in meters.
- The Inverse Square Law is used to calculate the beam distance to 0.25 lux. 0.25 lux is approximately the equivalent of the light emitted from the full moon "on a clear night in an open field".

Light Output

- A measurement of the total quantity of emitted overall light energy as measured by integrating the entire angular output of the portable light source.
- The value is reported in lumens. Light Output is the total luminous flux.

Water Proof

- Submersible-IP68-Ingress of water in quantities causing harmful effects shall not be possible when the enclosure is continuously immersed in water under conditions which shall be stated by the manufacturer, but which are more severe than for IPX7.
- IP69K Protected against close-range, high temperature, high pressure spray downs.

TRM SERIES MARINE



The TRM Marine series provides the extra protection needed in salt water and other highly corrosive environments. The TRM is available in the same sizes and configuration as the TRX series.

- 2 step corrosion barrier powder coat finish with UV Stabilizer
- IP68 and IP69K rated
- Immersion tested to 9 meters
- Stainless steel mounting hardware

Also available are our waterproof RECT-13, 14 and 16 LED Lights

- LEDs available in red, blue, amber and white
- 3, 4 or 6 ultra high intensity LEDs



TRT SERIES TACTICAL



The TRT Tactical series lightbars combine the power of the TRX lights with Tomar's high intensity warning lights. The TRT series includes all the features of the TRX series lightbars plus warning modules in Amber, Blue, Red or Green. All colors and flash patterns (Including CA stead RED) comply with applicable SAE, CCR 13 and ECE 65 standards.



Ordering Guide

LIGHTBARS TRX-10C-XXXX

TOMAR	
TRX	Tomar Extreme
TRT	Tomar Tactical
TRM	Tomar Marine

NORMAL LENGTH	
03	
06	
10	
15	
20	
25	
30	
35	
40	
45	
50	
60	

WIRE CONFIGURATION	
C	WP Connectors
W	Wires Only

BEAM PATTERN	
S	6.5° Spot
F	85° Flood
C	20° Composite
AC	Amb/Wht Combo
FS	Flood/Spot Split
SC	Spot/Combo Split
FC	Flood/Combo Split
WxS	Warning/6.5° Spot
WxF	Warning/85° Flood
WxC	Warning/20° Combo
WxAC	Warning/Amb/Wht/Combo
WxFS	Warning/Flood/Spot Split
WxSC	Warning/Spot/Comp Split
WxFC	Warning/Flood/Comp Split

The x in the warning model numbers can be 1, 2, 3 or 4 and correspond to the number of warning sets in the bar. Examples below:



LAMP MODULES TRXH-LA-XX

TOMAR
Extreme LED Light

LAMP SIZE	
H	HALF SIZE
F	FULL SIZE

LAMP COLOR	
LA	LED AMBER
LW	LED WHITE
LAW	LED Amb/Wht

BEAM PATTERN	
S	6.5° Spot
F	85° Flood
S	20° FS Composite
AC	Amb/Wht Combo



TOMAR Electronics, Inc.

Clearing the Way

For over 48 years, TOMAR Electronics, located in Gilbert, Arizona, has engineered, designed, and manufactured the highest quality, most reliable and extremely efficient audible and visual warning signals. Tomar Electronics is dedicated to perfecting strobe and LED technology and continues to define the standard for warning light performance into the twenty-first century.

From assemblers to administration, TOMAR is continuously improving manufacturing efficiencies while preserving the consistent quality of our work. We take great pride in our efforts toward providing innovative products that save lives

Research and Development

The cornerstone of innovation.

The performance and reliability of TOMAR products evolves from a half century of intensive research and development of high efficiency electronic circuit designs and innovative optics.

TOMAR's staff of highly specialized engineers employ state-of-the-art electronic design and testing equipment to create the most advanced warning signals available. TOMAR's testing and research equipment includes:

- An advanced computerized circuit simulator that defines critical tolerance parameters and predicts for potential design weaknesses.
- Surface Mount Technology Computer Automated (SMT) Component Pick and Place Assembly
- A 100 foot light measurement tunnel which uses photometers calibrated to display measurements in candelas effective in accordance with FAA, SAE, ECE and IES standards. High speed photodiodes are used to measure and display light pulse wave shapes to insure accuracy in light intensity output specifications.
- A fully equipped test lab, capable of making all tests and measurements.
- A fast scanning spectroradiometer for color measurements.

Manufacturing and Quality Control *Striving to produce high quality products.*

Rigorous quality control standards and detailed inspections are implemented at various stages in the production process. All TOMAR products are 100% tested to ensure accurate and trouble free performance for the life of the product. Statistical Process Control is used to monitor production quality with detailed precision. TOMAR's warranties are among the longest in the industry, made possible by the dedication to quality in both the design and manufacturing processes. A computerized system integrating order entry, inventory, and production control helps to facilitate rapid order fulfillment.

Tomar TRX Product Line Limited Lifetime Warranty

TOMAR Electronics, Inc. warrants all product catalog numbers beginning with TRX to be free from defects in workmanship and materials for the lifetime of the product. TOMAR Electronics, Inc.'s obligation under this warranty is limited to repair or replacement, at TOMAR's option, of the defective product. Any and all costs of removal, installation, freight or incidental or consequential damages are expressly excluded from this warranty. TOMAR Electronics, Inc. is not responsible for damages and / or warranty of other vehicle parts related or non-related to the installation of TOMAR products. For this warranty, "lifetime of the product" means five years after the discontinuation of the warranted product's catalog number, or five years from the date of purchase of the product, whichever is longer.



TOMAR Electronics, Inc.
Clearing the Way

2100 W. Obispo Ave. Gilbert, AZ 85233 USA 800.338.3133 phone 800.688.6627 fax www.tomar.com

PUB0138 Rev 10/16