

# LUXTRAN™ Luminaires for Tunnel Applications

## LTSI-A1 SERIES

### PRODUCT FEATURES:

- » Powered by Integral Driver
- » Suitable for supplemental lighting in various tunnel zones with a ceiling or wall orientation
- » Optical configurations designed for tunnel lighting applications
- » Stainless steel structural construction with marine-grade aluminum heat sinks
- » DLC Certified for certain configurations; please consult factory.
- » 10 Year limited product warranty



### PROJECT INFORMATION

Job Name \_\_\_\_\_

Fixture Type \_\_\_\_\_

Catalog Number \_\_\_\_\_

Approved by \_\_\_\_\_

### SPECIFICATIONS

**CHASSIS:** 16-gauge Type 304 or Type 316 stainless steel enclosure with one-piece, seam-welded construction; 2B finish; passivated post-welding. 14-gauge die-formed and welded mounting points; custom mounting detail to tunnel structure available.

**HEAT SINKS:** Type 413 marine-grade die-cast aluminum, coatings to withstand either 1,000 hour or 5,000 hour salt fog test per ASTM B117. Electrically insulated from stainless steel chassis.

**DOORFRAME:** 16-gauge Type 304 or Type 316 stainless steel doorframe with one-piece, seam-welded construction; 2B finish; passivated post-welding. Stainless steel safety cables attach to chassis. Lockable rotary latches (lock by others) constructed of matching grade stainless steel.

**GASKETING:** One-piece extruded silicone with molded corners.

**OPTICS:** Type II, III, 4N, 4W and 5S optical distributions. Clear tempered glass or polycarbonate lens.

**ELECTRICAL:** Serviceable high-brightness LED array. See Ordering Information for color temperature and CRI options. 70 CRI minimum. 120-277 or 277-480 VAC, 50/60Hz single-phase input; <20% THD, >0.90 PF. Minimum 90% electrical efficiency. Standard 0-10V dimming with 0-100% range. 5-100% dimming range with dim-to-dark capabilities @ 0V (100µA maximum source current). EMC compliant with FCC 47 CFR Part 15, Class B. Passes IEC 61000-4-4 EFT and IEC 61000-4-5 (Class 4) surge evaluation with standard integral surge protector. 3/4" conduit opening standard, other trade size openings available upon request.

**INSTALLATION:** Wall or ceiling orientation, see Ordering Information for selection. Mounting hardware provided by others. Conduit entry on back of luminaire, standard. Ambient temperature rating is -40°C to 40°C (55°C on 92L, 50°C on 140L; consult factory for higher ambient limits on a per-project basis).

**PHOTOMETRICS:** Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric data, please go to [www.kenall.com](http://www.kenall.com).

**WARRANTY:** Limited ten (10) year warranty.

**LISTINGS:** Luminaire is certified to UL Standards by Intertek Testing Laboratory for Wet Location. IP66 rating per IEC 60598. Rated to NEMA 4X. Luminaire is 3G vibration tested per ANSI C136.31. Passes ANSI C136.27-2012 qualification test. DesignLights Consortium® (DLC) qualified product. Not all versions of this product may be DLC listed. Please check the DLC Qualified Products List [here](#) for listed configuration details.



### ORDERING INFORMATION (EX: LTSI-A1-C-SM-2-8-295L-40K7-DIM5-CV-304-1KF)

Model    Size Configuration    Mounting    Mounting Design    Dist. Type    Lens Type    Lamp Power    Lamp Color    Driver Type    Voltage    Housing Mtrl    Heat Sink Finish    Options

LTSI	A1							DIM5				
	<b>Size Configuration</b>				<b>Lens Type</b>				<b>Voltage</b>			
	A1	1 Module Array			8	.188" (.48 cm) Tempered Glass Lens			DV	120-277 VAC Nominal Range		
					7	.187" (.47 cm) Clear Polycarbonate			CV	277-480 VAC Nominal Range		
	<b>Mounting</b>				<b>Lamp Power</b>				<b>Housing Material</b>			
	C	Ceiling			92L	92 Watt LED			304	Type 304 Stainless Steel		
	W	Wall			140L	140 Watt LED			316	Type 316 Stainless Steel		
	<b>Mounting Design Detail</b>				192L	192 Watt LED						
	SM	Standard Mounting Detail (as shown)			235L	235 Watt LED						
	CM	Custom/Project-Specific Mounting (consult factory)			295L	295 Watt LED			<b>Heat Sink Finish</b>			
	<b>Distribution Type</b>								1KF	1,000 Hour Finish		
	2	Type II							5KF	5,000 Hour Finish		
	3	Type III			<b>Lamp Color</b>				<b>Options</b>			
	4N	Type IV – Narrow			30K7	3000K / 70 CRI min.			FS1	Single Fuse and Holder (600V, Dual Element/Time-Delay Standard)		
	4W	Type IV – Wide			40K7	4000K / 70 CRI min.			FS2	Double Fuse and Holder (600V, Dual Element/Time-Delay Standard)		
	5S	Type V – Square			40K8	4000K / 80 CRI min.			LPCM	Local Programmable Control Module (for Power Line Control)		
					50K7	5000K / 70 CRI min.						
					<b>Driver Type</b>							
					DIM5	0-10V Dimming to 5%						



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#### PERFORMANCE

Lamp - Color Code	Initial Delivered Lumens (lm)					Efficacy (lm/W)	Input Power (W)	TM-21 Reported L70 (hrs)	Lumen Maintenance @ 50k Hrs
	Type 2	Type 3	Type 4N	Type 4W	Type 5S				
92L-30K7	14,880	13,406	15,203	15,003	14,799	130 - 147	103	150,000	95%
92L-40K7	15,643	14,094	15,982	15,772	15,558	137 - 155	103	150,000	95%
92L-40K8	14,880	13,406	15,203	15,003	14,799	130 - 147	103	150,000	95%
92L-50K7	15,643	14,094	15,982	15,772	15,558	137 - 155	103	150,000	95%
140L-30K7	21,733	19,581	22,205	21,913	21,616	124 - 140	158	125,000	92%
140L-40K7	22,848	20,585	23,343	23,036	22,724	130 - 147	158	125,000	92%
140L-40K8	21,733	19,581	22,205	21,913	21,616	124 - 140	158	125,000	92%
140L-50K7	22,848	20,585	23,343	23,036	22,724	130 - 147	158	125,000	92%
192L-30K7	27,357	24,648	27,950	27,582	27,208	114 - 129	216	120,000	89%
192L-40K7	28,760	25,911	29,383	28,997	28,604	120 - 136	216	120,000	89%
192L-40K8	27,357	24,648	27,950	27,582	27,208	114 - 129	216	120,000	89%
192L-50K7	28,760	25,911	29,383	28,997	28,604	120 - 136	216	120,000	89%
235L-30K7	30,849	27,794	31,518	31,103	30,682	113 - 128	247	110,000	87%
235L-40K7	32,431	29,219	33,135	32,699	32,255	118 - 134	247	110,000	87%
235L-40K8	30,849	27,794	31,518	31,103	30,682	113 - 128	247	110,000	87%
235L-50K7	32,431	29,219	33,135	32,699	32,255	118 - 134	247	110,000	87%
295L-30K7	37,184	33,501	37,990	37,490	36,982	102 - 116	328	100,000	85%
295L-40K7	39,090	35,219	39,938	39,413	38,879	107 - 122	328	100,000	85%
295L-40K8	37,184	33,501	37,990	37,490	36,982	102 - 116	328	100,000	85%
295L-50K7	39,090	35,219	39,938	39,413	38,879	107 - 122	328	100,000	85%

Information above was tested with an outer tempered glass lens. Subject to change without notice. Visit [www.kenall.com](http://www.kenall.com) for IES files and additional information.

#### LUMEN AMBIENT TEMPERATURE (LAT) FACTORS

10°C	15°C	20°C	25°C	30°C	35°C	40°C
1.03	1.02	1.01	1.00	0.99	0.98	0.97



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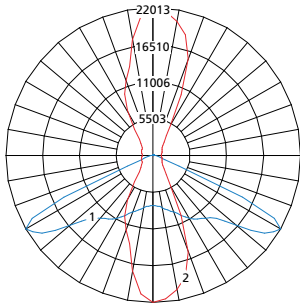
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### PERFORMANCE

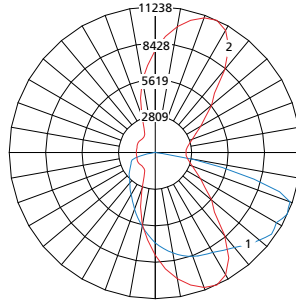
Model: LTSI-A1-C-x-2-8-192L-40K7-DIM5-CV-y-z



Maximum Candela = 22013 Located At Horizontal Angle = 90, Vertical Angle = 60

- 1 - Vertical Plane Through Horizontal Angles (90-270) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (60) (Through Max. Cd.)

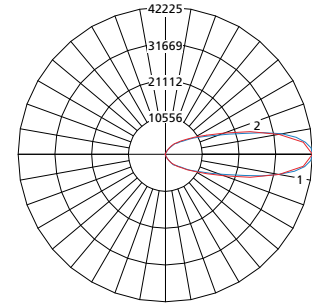
Model: LTSI-A1-C-x-3-8-192L-40K7-DIM5-CV-y-z



Max Candela = 11238 Located At Horizontal Angle = 65, Vertical Angle = 65

- 1 - Vertical Plane Through Horizontal Angles (65 - 245) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

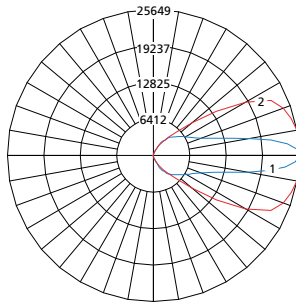
Model: LTSI-A1-W-x-4N-8-192L-40K7-DIM5-CV-y-z



Max Candela = 42225 Located At Horizontal Angle = 0, Vertical Angle = 90

- 1 - Vertical Plane Through Horizontal Angles (0 - 180) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (90) (Through Max. Cd.)

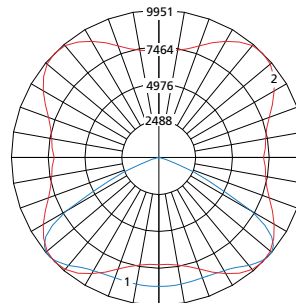
Model: LTSI-A1-C-x-4W-8-192L-40K7-DIM5-CV-y-z



Max Candela = 25649 Located At Horizontal Angle = 10, Vertical Angle = 90

- 1 - Vertical Plane Through Horizontal Angles (10 - 190) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (90) (Through Max. Cd.)

Model: LTSI-A1-W-x-5S-8-192L-40K7-DIM5-CV-y-z



Max Candela = 9951 Located At Horizontal Angle = 45, Vertical Angle = 47.5

- 1 - Vertical Plane Through Horizontal Angles (45 - 225) (Through Max. Cd.)
- 2 - Horizontal Cone Through Vertical Angle (47.5) (Through Max. Cd.)



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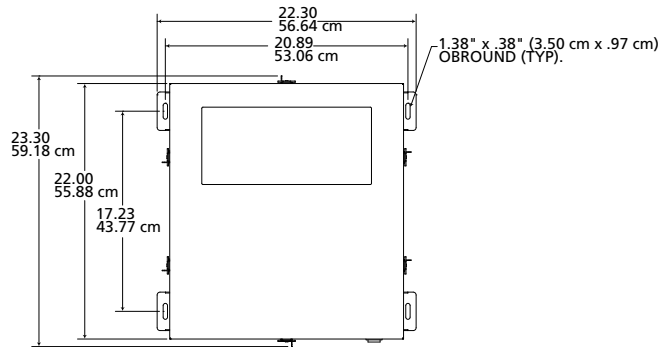
**LTSI-A1 SERIES**

**DIMENSIONAL DATA**

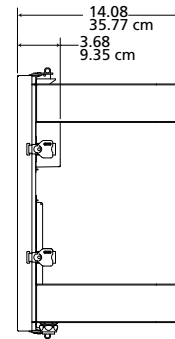
**LAMP POWER**

**92L/140L/192L**

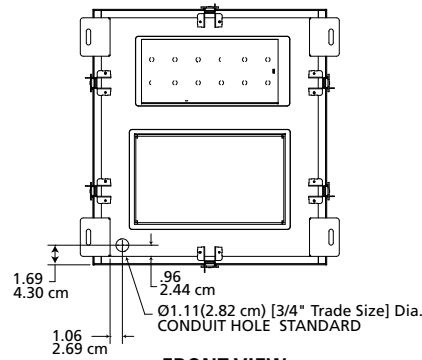
**FRONT VIEW**



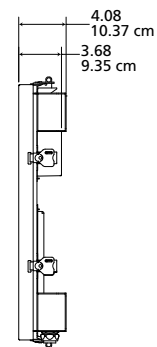
**SIDE VIEW- CEILING MOUNT**



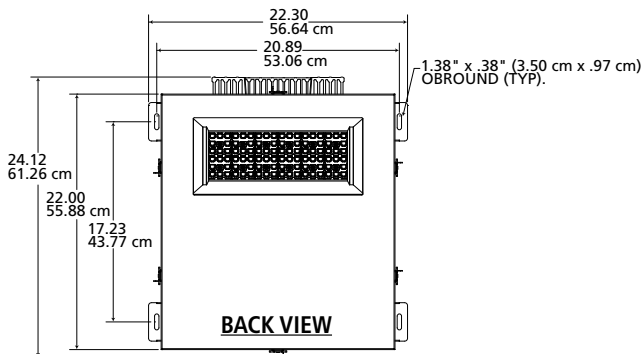
**BACK VIEW**



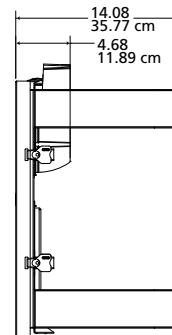
**SIDE VIEW- WALL MOUNT**



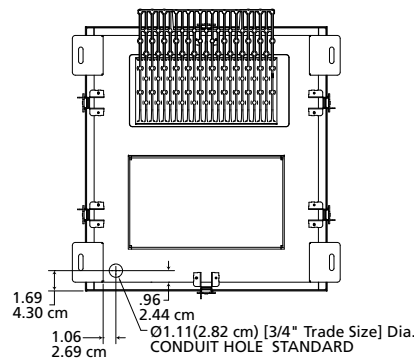
**FRONT VIEW**



**SIDE VIEW**



**BACK VIEW**



**LAMP POWER**

**235L/295L**



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