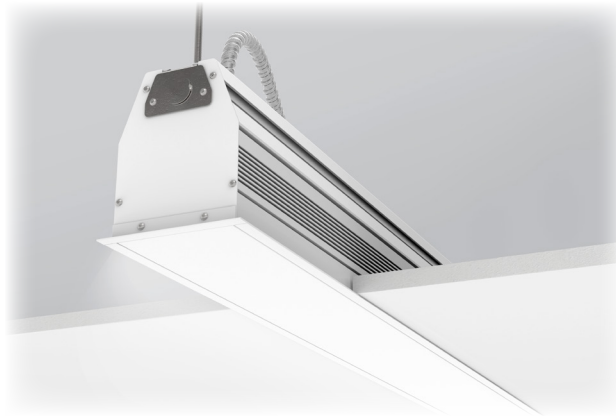


# KETRA

## L4R LINEAR RECESSED

Project: \_\_\_\_\_  
 Comments: \_\_\_\_\_  
 Prepared By: \_\_\_\_\_



High performance 4" wide linear recessed fixture

End to end connections allowing for straight continuous lines of light

Tunable spectrum single point source produces wide range of white, pastels & saturated colors

Programmable digital dimming to 0.1%

Closed-loop color point maintenance to <1 MacAdam ellipse over lifetime and temperature

Connects with Ketra's N3 Satellite for power, wireless control and connection to Ketra's library of light content

Ketra's technology ensures consistent appearance and guaranteed compatibility over LED technology generations

### HARDWARE ORDERING GUIDE

L4R		BT	FO				PR1	
Model	Lumens/ft	Platform/ Control	Lens Option	Region/ Voltage	Hanging Style	Housing Color	Configuration	Length
Code		Code		Code		Code		Code
Model				Region and Voltage			Configuration	
Linear 4" Wide Recessed		<b>L4R</b>		North America, 120VAC 60Hz		<b>11</b>	Standard	<b>PR1</b>
				North America, 277VAC 60Hz		<b>12</b>		
Lumens/ft				Hanging Style			Length	
400 Lumens		<b>04</b>		Flanged, T-Grid		<b>FTG</b>	Continuous Length Available	<b>--</b>
600 Lumens		<b>06</b>		Flanged, Threaded Rod		<b>FTR</b>	2' NOM	<b>0002</b>
800 Lumens		<b>08</b>		Flangeless, Aircraft Cable		<b>NAC</b>	3' NOM	<b>0003</b>
1000 Lumens		<b>10</b>		Flangeless, Threaded Rod		<b>NTR</b>	4' NOM	<b>0004</b>
Platform & Control				Flangeless, External Mounting Bracket		<b>NEB</b>	6' NOM	<b>0006</b>
Wide Gamut, Tunable		<b>BT</b>					8' NOM	<b>0008</b>
Lens Option							10' NOM	<b>0010</b>
Flush Opal Lens		<b>FO</b>		Housing Color			12' NOM	<b>0012</b>
				White		<b>WH</b>		
				Black		<b>BK</b>		

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 Specifications are subject to change without notice

## SPECIFICATIONS<sup>1</sup>

### OPTICAL & ELECTRICAL PERFORMANCE

Delivered Lumen Output <sup>2</sup>	L4R.04	400lm/ft
	L4R.06	600lm/ft
	L4R.08	800lm/ft
	L4R.10	1000lm/ft
CRI (Ra) <sup>3</sup>	>90 (R9 >90)	
Lumen Maintenance <sup>3</sup>	50,000 hours to L70 @ 25°C TA	
Color Spatial Uniformity	<2 MacAdam ellipses across field angle	
Color Point Range <sup>4</sup>	1400-10000K, Pastel and Saturate colors	
Dimming Range <sup>4</sup>	0.1-100% lm	
Power Consumption	L4R.04	7.7W/ft
	L4R.06	10W/ft
	L4R.08	12.4W/ft
	L4R.10	15.5W/ft
Voltage	120VAC 60Hz, 277VAC 60Hz	
Power Factor	>0.9	
Current	82 mA Max	
Delivered Efficacy	L4R.04	51.9lm/W
	L4R.06	60lm/W
	L4R.08	64.5lm/W
	L4R.10	64.5lm/W
Surge Protection	2.5KV	
Control Protocol	KetraNet PLC via N3	

### ENVIRONMENTAL

Operating Temperature <sup>5</sup>	0 to 50°C
Storage Temperature	-20 - 80°C
Humidity	0 - 95%, Non-condensing
Certification	UL, cUL, RoHS, FCC Class B
Location	UL Damp Location, IP20

### MECHANICAL

Weight	3.7bs/ft, 1.7kg/ft
Housing Material	Powder Coated Aluminum, Corrosion Protected Steel
Lens Material	UL F1 outdoor rating for UV and water contact PMMA

## PRODUCT DRAWINGS

### FLANGED HOUSING



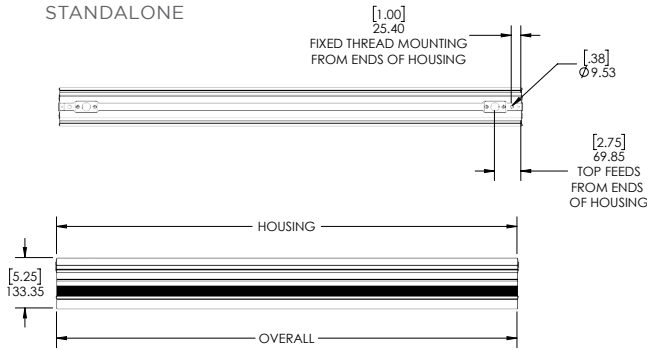
### FLANGELESS HOUSING



- <sup>1</sup> All performance measurements taken at 3000K, 25°C ambient, 100% power input, unless otherwise stated.
- <sup>2</sup> Lumen measurement complies with IES LM-79-08 testing procedures.
- <sup>3</sup> Lumen maintenance values calculated in accordance to TM-21 procedures based on LM-80 compliant measurement data.
- <sup>4</sup> Intensity and color point controlled via Ketra's wireless network

## PRODUCT DIMENSIONS - FLANGED, T-GRID

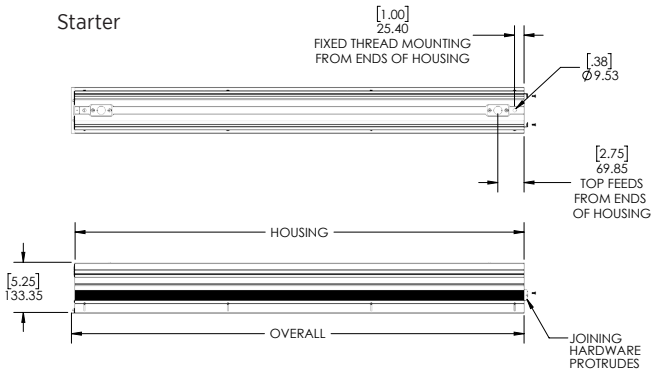
### STANDALONE



VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]
2FT NOMINAL	584.20	23.00	604.20	23.79
4FT NOMINAL	1193.80	47.00	1213.80	47.79
8FT NOMINAL	2413.00	95.00	2433.00	95.79
12FT NOMINAL	3632.20	143.00	3652.20	143.79

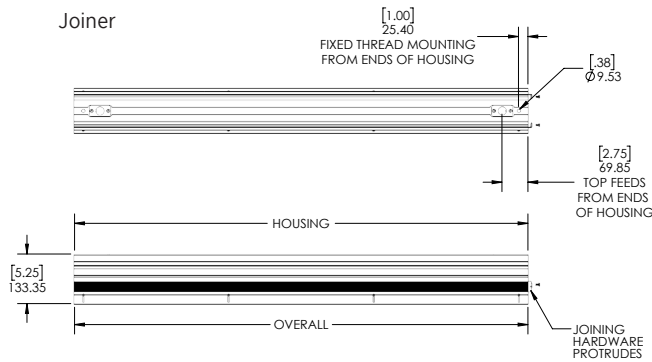
### CONTINUOUS RUNS

#### Starter



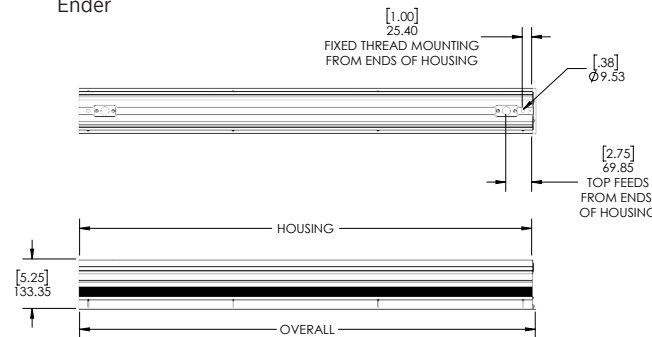
VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]
2FT NOMINAL	584.20	23.00	604.20	23.79
4FT NOMINAL	1193.80	47.00	1213.80	47.79
8FT NOMINAL	2413.00	95.00	2433.00	95.79
12FT NOMINAL	3632.20	143.00	3652.20	143.79

#### Joiner



VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]
2FT NOMINAL	609.60	24.00	609.60	24.00
3FT NOMINAL	914.40	36.00	914.40	36.00
4FT NOMINAL	1219.20	48.00	1219.20	48.00
6FT NOMINAL	1828.80	72.00	1828.80	72.00
8FT NOMINAL	2438.40	96.00	2438.40	96.00
10FT NOMINAL	3048.00	120.00	3048.00	120.00
12FT NOMINAL	3657.60	144.00	3657.60	144.00

#### Ender



VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]
2FT NOMINAL	609.60	24.00	619.60	24.39
3FT NOMINAL	914.40	36.00	924.40	36.39
4FT NOMINAL	1219.20	48.00	1229.20	48.39
6FT NOMINAL	1828.80	72.00	1838.80	72.39
8FT NOMINAL	2438.40	96.00	2448.40	96.39
10FT NOMINAL	3048.00	120.00	3058.00	120.39
12FT NOMINAL	3657.60	144.00	3667.60	144.39

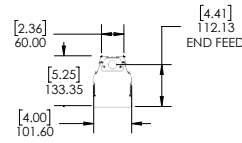
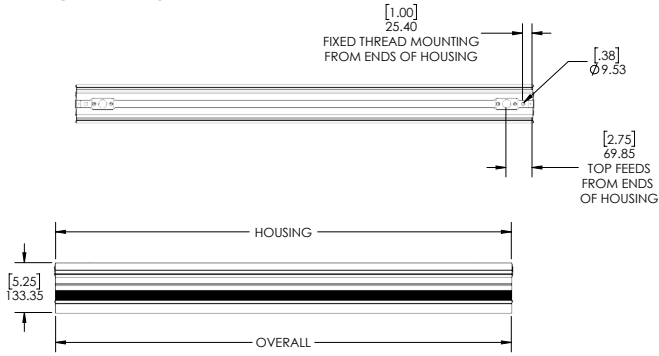
CAD files available upon request

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## PRODUCT DIMENSIONS - FLANGELESS

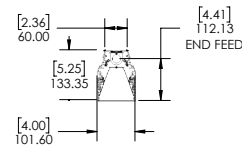
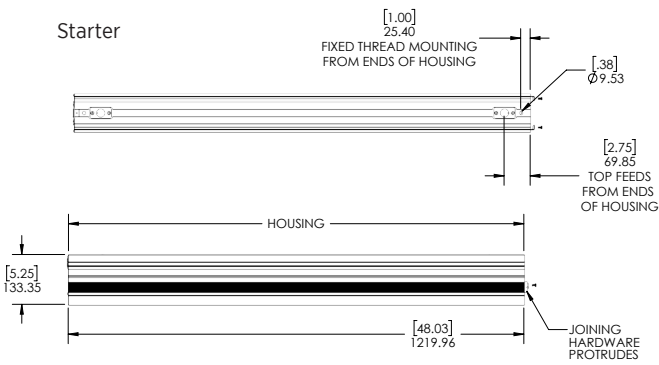
### STANDALONE



VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]	WEIGHT
2FT NOMINAL	609.60	24.00	611.12	24.06	8lbs
3FT NOMINAL	914.40	36.00	915.92	36.06	12lbs
4FT NOMINAL	1219.20	48.00	1220.72	48.06	16lbs
6FT NOMINAL	1828.80	72.00	1830.32	72.06	23lbs
8FT NOMINAL	2438.40	96.00	2439.92	96.06	31lbs
10FT NOMINAL	3048.00	120.00	3049.52	120.06	39lbs
12FT NOMINAL	3657.60	144.00	3659.12	144.06	46lbs

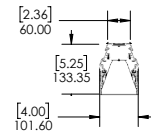
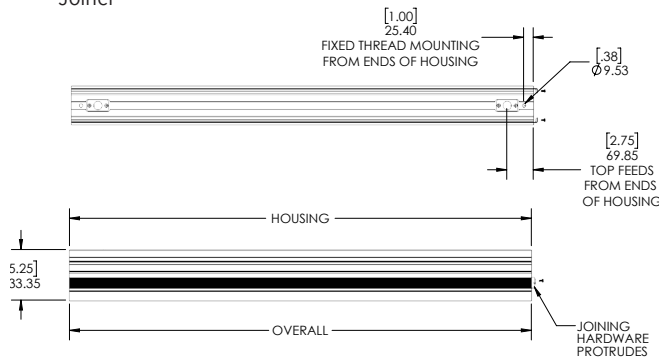
### CONTINUOUS RUNS

#### Starter



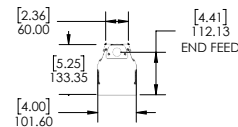
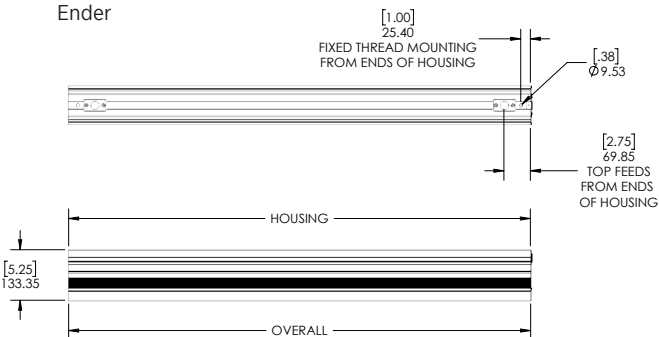
VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]	WEIGHT
2FT NOMINAL	609.60	24.00	610.36	24.03	8lbs
3FT NOMINAL	914.40	36.00	915.16	36.03	12lbs
4FT NOMINAL	1219.20	48.00	1219.96	48.03	16lbs
6FT NOMINAL	1828.80	72.00	1829.56	72.03	23lbs
8FT NOMINAL	2438.40	96.00	2439.16	96.03	31lbs
10FT NOMINAL	3048.00	120.00	3048.76	120.03	39lbs
12FT NOMINAL	3657.60	144.00	3658.36	144.03	46lbs

#### Joiner



VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]	WEIGHT
2FT NOMINAL	609.60	24.00	609.60	24.00	8lbs
3FT NOMINAL	914.40	36.00	914.40	36.00	12lbs
4FT NOMINAL	1219.20	48.00	1219.20	48.00	16lbs
6FT NOMINAL	1828.80	72.00	1828.80	72.00	23lbs
8FT NOMINAL	2438.40	96.00	2438.40	96.00	31lbs
10FT NOMINAL	3048.00	120.00	3048.00	120.00	39lbs
12FT NOMINAL	3657.60	144.00	3657.60	144.00	46lbs

#### Ender



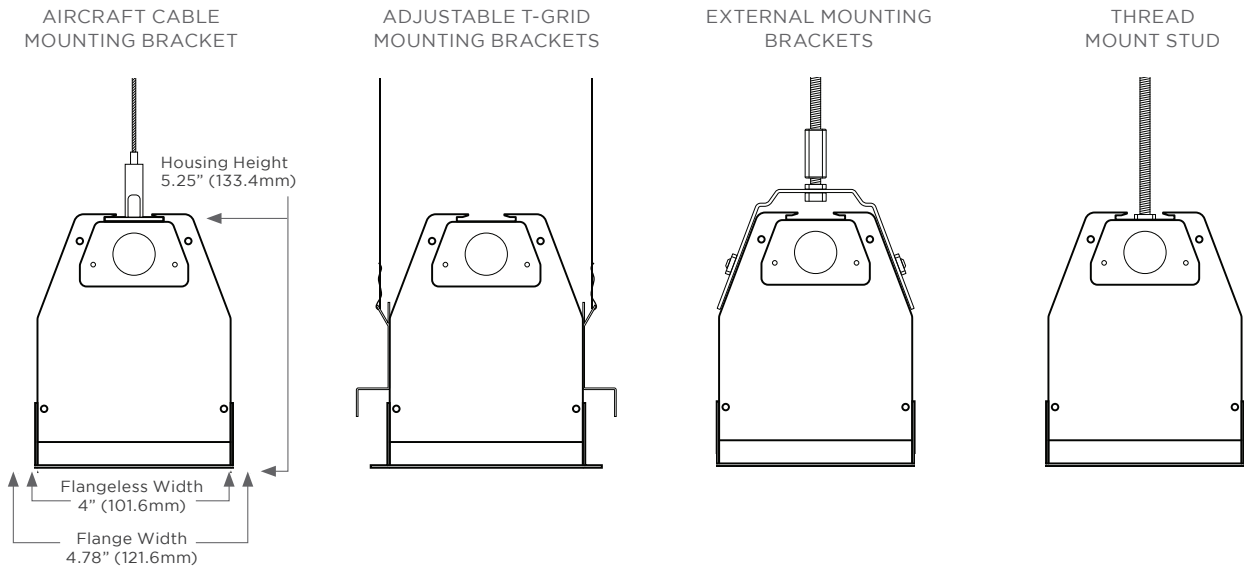
VARIANT	HOUSING (mm)	[IN]	OVERALL (mm)	[IN]	WEIGHT
2FT NOMINAL	609.60	24.00	610.36	24.03	8lbs
3FT NOMINAL	914.40	36.00	915.16	36.03	12lbs
4FT NOMINAL	1219.20	48.00	1219.96	48.03	16lbs
6FT NOMINAL	1828.80	72.00	1829.56	72.03	23lbs
8FT NOMINAL	2438.40	96.00	2439.16	96.03	31lbs
10FT NOMINAL	3048.00	120.00	3048.76	120.03	39lbs
12FT NOMINAL	3657.60	144.00	3658.36	144.03	46lbs

CAD files available upon request

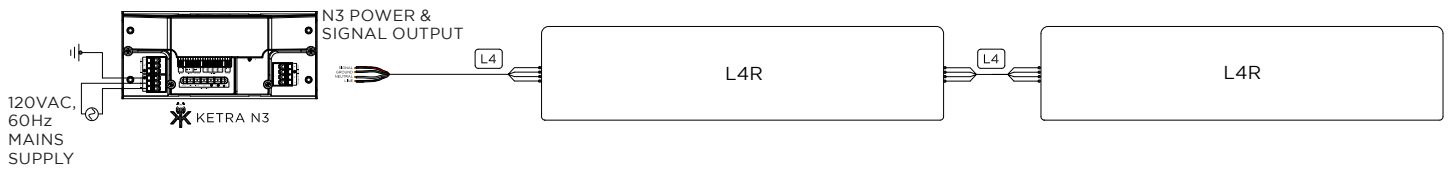
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## MOUNTING OPTIONS



## WIRING DIAGRAMS

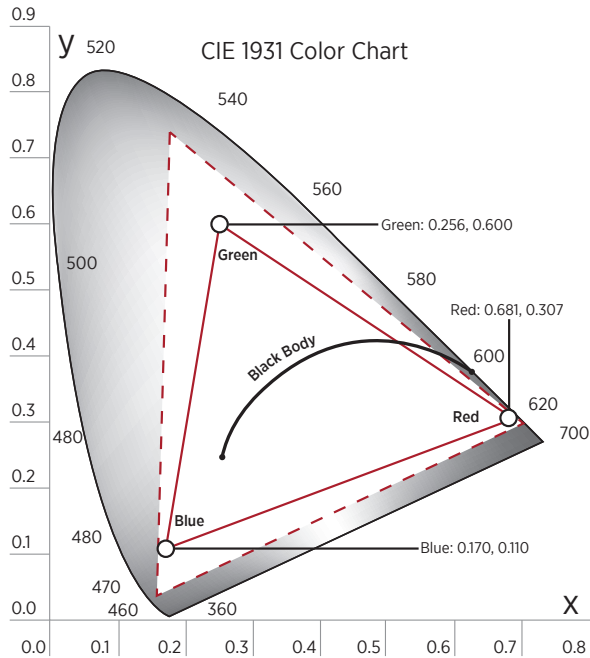


KEY	
	16 AWG, 4 WIRE
	KETRANET MESH WIRELESS NETWORK

PER N3:  
MAX. FIXTURE QTY: 40 FT OF L4R  
MAX. RUN LENGTH: 100FT

50 KETRANET MESH NODES PER  
INSTALLATION NETWORK

## WIDE GAMUT



Ketra's L4R Linear Recessed can easily be configured via Ketra's intuitive Design Studio software. The product can reproduce any color point within the triangle shaped gamut indicated in the chart below. With Ketra's innovative optical and thermal feedback system, the color point is maintained to an accuracy of <1 MacAdam ellipse over the lifetime of the product and across operating temperature range.

- Calibrated Gamut: color point is maintained to an accuracy of <1 MacAdam ellipse over the lifetime of the product and across operating temperature range
- - - Expanded Gamut: Color calibration is relaxed such that each product produces the most saturated color it is capable of.

## GENERAL SPECIFICATIONS

LED linear shall employ closed loop optical and thermal feedback capable of maintaining color point accuracy of <1 MacAdam ellipse.

LED linear shall have color spatial uniformity of <2 MacAdam ellipses over full field angle.

LED linear shall have an integrated wireless control onboard.

LED linear shall be capable of a CRI >90 at any point along the Black Body Curve from 2700 - 5000K.

LED linear shall be a single source multi-die emitter consisting of both monochromatic and phosphor converted blue LED dye.

LED linear shall be sealed, meeting UL damp location requirements.

LED linear shall be dimmable to 0.1% of measured luminous flux with wireless dimming.

LED linear shall be UL listed and RoHS compliant.

LED linear shall be capable of in situ firmware and software upgrades.

Ketra's LED L4R linear is warranted to be free from material defects in material and workmanship for five (5) years or 25,000 hours from date of shipment, whichever is less.

LED Linear shall be # \_\_\_\_\_