



TRAC 12

Miniature Low Voltage Trac System

LED MODULE

12-VOLT AC

TL201LEDX1, TL201LEDX2 and TL201LEDX3

Project: _____

Fixture Type: _____

Location: _____

Contact/Phone: _____

PRODUCT DESCRIPTION

Miniature LED module approximates the lumen output and light distribution of 5W-10W xenon lamps, utilizing approximately 1/8 of the energy and having a rated life of 50,000 hours. Available in 3000K and 4100K color temperatures, the white-light TL201LEDX Series is compatible with standard Trac 12 and Trac 12/25 trac, operating with 12V AC power. The modules can be placed anywhere along the Trac, and the trac can be cut-to-length during installation, making Trac 12 LED Modules the most flexible linear lighting choice.

PRODUCT SPECIFICATIONS

LED Citizen Electronics package using Nichia LEDs provide outstanding reliability, performance and color quality/consistency • 3000K or 4100K white phosphor low power LED designed to operate using 12-volt AC input • 70+ CRI • Three wattages available which deliver different lumen packages to suit a wide variety of applications.

Housing High temperature engineered thermoplastic.

Electrical Contacts Beryllium copper.

Trac Refer to specification sheets D3.1.0 and D3.1.1.

Transformers/Drivers Compatible with all 12VAC Trac 12 and Trac 12/25 Remote Mount Magnetic Transformers – refer to specification sheets D3.1.3 and D3.1.6 • Compatible with all 12VAC TL601E Electronic Drivers – refer to specification sheet D3.1.8.

Dimming May be dimmed with dimmers tested and qualified by Juno for use with the non-resistive TL201LED Series load – see transformer/driver specifications for compatible dimmers • Color temperature remains constant over dimming range • Consult factory for additional information.

Warranty Warranty period is 3-years from date of purchase • Standard Juno Lighting Group product guarantee terms and conditions apply • Continuously operating the TL201LED above 12VAC will void the warranty.

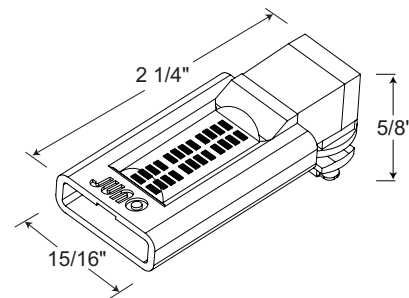
Labels UL/CUL Listed.

Product specifications subject to change without notice.

PRODUCT CODES

Catalog Number	Wattage (Nominal)	Color Temperature	Finish
TL201LEDX1-3K-WH	0.7W	3000K	White
TL201LEDX1-3K-BL	0.7W	3000K	Black
TL201LEDX1-4K-WH	0.7W	4100K	White
TL201LEDX1-4K-BL	0.7W	4100K	Black
TL201LEDX2-3K-WH	1.3W	3000K	White
TL201LEDX2-3K-BL	1.3W	3000K	Black
TL201LEDX2-4K-WH	1.3W	4100K	White
TL201LEDX2-4K-BL	1.3W	4100K	Black
TL201LEDX3-3K-WH	1.6W	3000K	White
TL201LEDX3-3K-BL	1.6W	3000K	Black
TL201LEDX3-4K-WH	1.6W	4100K	White
TL201LEDX3-4K-BL	1.6W	4100K	Black

DIMENSIONS



PERFORMANCE DATA

Catalog Number	Input Voltage	Watts (Nominal)	Lumens	Efficacy (LPW)	Rated Life (Hours)
TL201LEDX1-3K	12.0V	0.7W	21	30	50,000
TL201LEDX1-4K	12.0V	0.7W	24	34	50,000
TL201LEDX2-3K	12.0V	1.3W	40	31	50,000
TL201LEDX2-4K	12.0V	1.3W	46	35	50,000
TL201LEDX3-3K	12.0V	1.6W	53	33	50,000
TL201LEDX3-4K	12.0V	1.6W	61	38	50,000

¹Performance data, including Rated Life, is based on measurements of an individual module operating in a 25°C ambient. In practice, multiple modules used in a system will average slightly lower power consumption due to voltage drop within the system.

Note: For operation at 11.5 volts multiply Lumens by 0.94.

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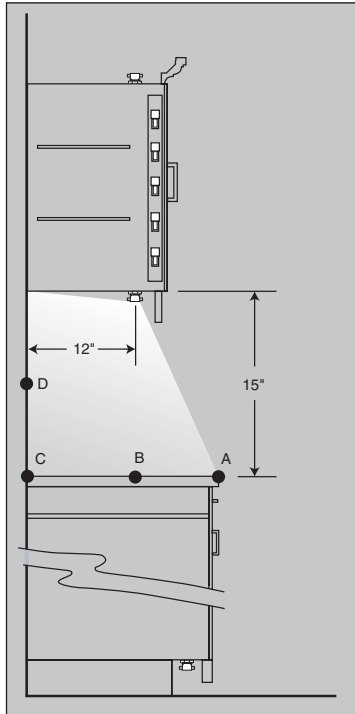
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Cabinetry Lighting Guidelines



Over Cabinets Trac 12, using TL201LEDX2s spaced 6" on-center, generally provides excellent indirect lighting. For lower-level mood lighting, use TL201LEDX1s with closer lamp spacing. Placing the fixture at the front edge of the cabinet top will project light into the space and illuminate any displayed objects. Locate top of lamp even with top edge of cove molding to prevent a harsh shadow line.

Inside Cabinets Running Trac 12 vertically on the front inside of cabinets avoids the need to put trac on each shelf. TL201LEDX1s placed 4"- 6" on-center generally provide adequate lighting inside a cabinet.

Under Cabinets Placing Juno Trac 12 at the front lip of the cabinet conceals the fixture from view, minimizes veiling reflections, and provides maximum light on the working area of the countertop.

Footcandles on Horizontal Work Surface

Cat #	Color Temp	O.C. Spacing	Footcandles			
			A	B	C	D
TL201LEDX1-3K	3000K	3"	18	42	26	20
TL201LEDX1-4K	4100K	3"	21	48	29	23
TL201LEDX2-3K	3000K	3"	32	75	46	37
TL201LEDX2-4K	4100K	3"	37	87	53	42
TL201LEDX3-3K	3000K	3"	41	97	60	48
TL201LEDX3-4K	4100K	3"	48	112	69	56

Kick Spaces TL201LEDX1s spaced 4" on-center generally provides adequate kick space lighting. Wider spacings can be used when the distance from the trac to the floor is greater than 4" or when even illumination is not required.

Note: Shiny flooring or countertops may cause lamp image reflections.

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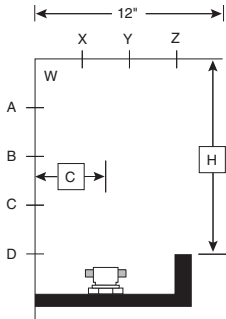
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Cove Lighting



Placement Guidelines

1. For uniform illumination o.c. lamp spacing must be equal to or less than lamp spacing from wall "C"

Footcandles on Vertical and Horizontal planes 3000K/4100K *

Lamp Spacing from Wall [C]	O.C. Lamp Spacing	Cove Height [H]	Footcandles on Vert. Plane (Wall)				Footcandles on Horiz. Plane (Ceiling)			
			A	B	C	D	W	X	Y	Z
TL201LEDX1										
3"	3"	6"	93/106	106/121	85/97	37/42	122/139	141/161	104/119	59/67
3"	3"	9"	52/59	71/81	86/98	21/24	89/102	93/106	78/89	56/64
3"	3"	12"	33/38	46/53	79/90	16/18	65/74	67/77	60/69	47/54
4"	4"	6"	68/78	66/75	46/53	25/29	79/90	104/119	91/104	54/62
4"	4"	9"	43/49	52/59	47/54	15/17	62/71	69/79	64/73	48/55
4"	4"	12"	28/32	38/43	47/54	11/13	48/55	51/58	48/55	39/45
TL201LEDX2										
3"	3"	6"	152/175	177/204	150/173	57/66	207/238	241/277	117/135	103/118
3"	3"	9"	89/102	118/136	143/164	35/40	153/176	160/184	137/158	96/110
3"	3"	12"	56/64	78/90	135/155	27/31	113/130	117/135	105/121	82/94
4"	4"	6"	116/133	112/129	76/87	44/51	133/153	178/205	154/177	93/107
4"	4"	9"	73/84	87/100	77/89	26/30	106/122	119/137	109/125	82/94
4"	4"	12"	49/56	65/75	81/93	18/21	83/95	88/101	82/94	68/78
TL201LEDX3										
3"	3"	6"	206/237	240/276	185/213	81/93	278/320	322/371	236/272	136/157
3"	3"	9"	118/136	161/185	190/219	47/54	201/231	211/243	179/206	127/146
3"	3"	12"	75/86	104/120	181/208	35/40	148/170	153/176	137/158	107/123
4"	4"	6"	151/174	148/170	104/120	57/66	176/203	234/269	208/239	122/140
4"	4"	9"	96/110	115/132	103/119	32/37	140/161	156/180	143/165	107/123
4"	4"	12"	63/73	72/83	104/120	22/25	108/124	115/132	107/123	88/101

LUMENS PER FOOT *

Catalog No.	Lamp Spacing			
	2'/4"	3"	4"	6"
TL201LEDX1 (3000K)	105	84	63	42
TL201LEDX1 (4100K)	120	96	72	48
TL201LEDX2 (3000K)	200	160	120	80
TL201LEDX2 (4100K)	230	184	138	92
TL201LEDX3 (3000K)	265	212	159	106
TL201LEDX3 (4100K)	305	244	183	122

MAXIMUM TRAC RUN LENGTH **

Catalog No.	Transformer	Lamp Spacing			
		2'/4"	3"	4"	6"
TL201LEDX1	Electronic	14	17	19	24
	Magnetic	38	47	54	65
TL201LEDX2	Electronic	10	11	13	15
	Magnetic	30	36	44	52
TL201LEDX3	Electronic	9	12	13	16
	Magnetic	24	30	32	42

*Data shown is for operation at 12-volts. For operation at 11.5-volts, multiply by 0.94.

**Based on 20% maximum light output decrease between first and last fixture on trac due to voltage drop; to utilize full capacity of trac and transformers, individual transformer circuits may have to feed multiple runs using separate feed points.

