Warm Dim Linear LED strip - 24 VDC



#### Features



LineLED Warm Dim Series Double Row is a small profile high performance LED strip LineLED WD60X2 follows the incandescent dimming curve from 2700K at full brightness down to 1900K at the lowest dim levels. Compatibility with MLV, ELV, and Incandescent dimmers simplifies installation for residential or hospitality applications. It is easily installed directly onto the mounting surface with double sided tape or within discrete aluminum extrusions to seamlessly blend into any space. Industry-best color consistency with single-binned LEDs, 120 LEDs per foot. This High Color Quality LED strip boasts CRIs and R9 values up to 96. The durable, but flexible products feature a heavier copper board core for better heat dissipation and even illumination over long runs.

#### Mounting

LLED strip is equipped with 3MTM selfadhesive tape.

#### **Applications**

Approvals

Class 2 damp listed

Indoor only - millwork, cove, architectural reveals, undercabinet, display case, handrail, accent lighting.

#### **Operating voltage** 24 VDC

Average Life (L70) 50,000 hours

Warranty

сст

1900K 2700K

7 years



TM-30

Rg

98

105

R9

95

96

Rf

94

95

CRI

97

96

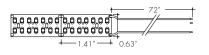


#### **Technical Information**

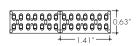
ТҮРЕ	LLWD60X2
OUTPUT OPTIONS	VHO (19K-27K)
Lumens Output (all channels full on)	657 lm/ft (27K)
Average Power Consumption (for a 4' section)	10.1 W/ft
Efficacy (all on)	65 lm/W
Cutting Increment (in)	1.41"
Pitch Length	0.2″
Max Run Length (in series)	12 ft
Dimensions	0.63″W x 0.09″ H

#### Section Start/End Options

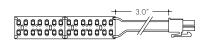
**SL** Soldered lead wires (72")



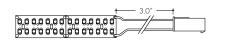
NC No connector



#### **LF** Lead Female 3″ cable



LM Lead Male 3" cable



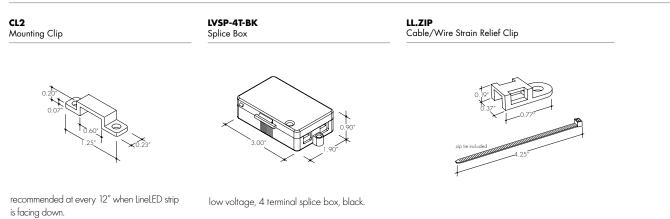
# Ordering code

MODEL	OUTPUT	COLOR TEMPERATURE	SECTION START	SECTION END	LENGTH
	-	-	-	-	-
LLWD60X2-LineLED WD60X2 Warm Dim	VHO-Very High	<b>19K-27K</b> -1900K - 2700K	SL-Soldered lead wires (72") LF-Female Quick Connect LM-Male Quick Connect NC-No Connector	SL-Soldered lead wires (72″) LF-Female Quick Connect LM-Male Quick Connect NC-No Connector	Ordered in one foot increments. See chart above for max run length.

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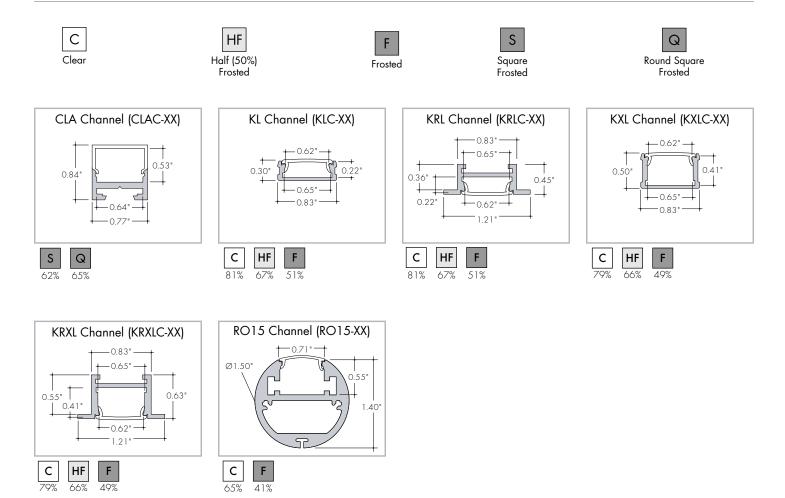


#### Accessories





## Lens Options / Light Transmission



#### Led Dotting per Extrusion

using the frosted lens option

	LED N	lodels
xtrusion	LLWD60X2 (27K)	LLWD60X2 (19K)
KL	SD	CD
KXL	ND	SD
CLA	ND	ND
KRL	SD	CD
KRXL	ND	SD
RO15	ND	ND



CD SD ND CD - Clear Dotting SD - Slight Dotting ND - No Dotting

#### Installation

All mounting channels are field cuttable using miter saw with circular blade suitable for cutting aluminum.

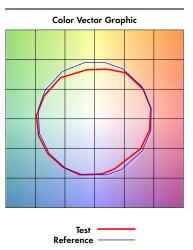
#### Ordering

Extrusions are sold separately. View respective specsheets for details on ordering extrusions and their accessories (endcaps, mounting brackets, etc).



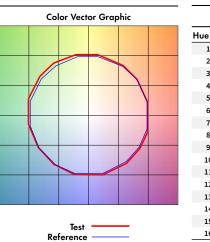
# TM-30 Color Vector Graphics





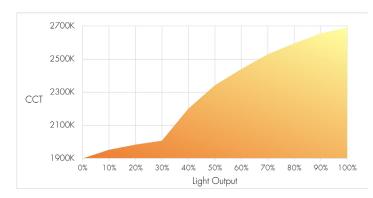
		Graphic	Shifts (%)
Hue Bin	Rf	Chroma	Hue
1	95.5	-0.4%	0.4%
2	90.3	-1.0%	-4.3%
3	82.5	-2.9%	-8.0%
4	82.8	-10.8%	-7.2%
5	86.6	-13.5%	-0.1%
6	84.3	-7.3%	9.4%
7	83.1	-4.1%	9.7%
8	83.3	0.8%	11.4%
9	91.8	2.1%	3.4%
10	95.6	2.1%	-0.4%
11	92.6	1.2%	-4.0%
12	88.9	1.0%	-6.1%
13	90.6	-3.1%	-7.8%
14	84.8	-7.7%	-9.2%
15	91.2	-4.4%	1.0%
16	92.5	-2.4%	0.2%

2700K



		Graphic :	Shifts (%)
Hue Bin	Rf	Chroma	Hue
1	95.4	0.8%	-1.5%
2	96.2	1.1%	-0.1%
3	94.4	1.8%	1.2%
 4	93.8	3.1%	1.2%
5	94.4	4.0%	1.8%
6	90.9	6.1%	1.0%
7	90.3	5.0%	-2.4%
8	90.5	4.4%	-3.6%
9	91.3	2.0%	-4.2%
10	93.2	0.6%	-3.7%
11	95.9	0.8%	-1.8%
12	92.9	1.7%	-2.4%
13	94.4	2.9%	-2.7%
14	94.3	3.0%	-2.7%
15	94.0	2.1%	-2.4%
16	93.2	2.0%	-4.3%

Warm Dim Curve



Brand	Model Part Number	Dimming Type	Dimming Range
Lutron	DIVA DVLV-603P	MLV	0 – 100
Lutron	DIVA DVLV-153P	MLV	0 – 100
Lutron	MRF2-6ELV-120	MLV	0 – 100
Lutron	MAESTRO WIRELESS MRF2-6ND-120	MLV	0 – 100
Lutron	SKYLARK CTCL-153P CFL/LED	MLV	0 – 100
Lutron	NOVA NVL-1000	MLV	0 – 100
Lutron	SKYLARK SLV-600P	MLV	0 – 100
Lutron	LUTRON PD-10NXD	ELV, INCAND, MLV	0 – 100
Leviton	LEVITON DECORA LED, CFL, INC	ELV, INCAND, MLV	0 – 100
Leviton	IP106-1L2 INCANDESCENT		0 – 100
Leviton	LEVITON AWSMT-MAW INC	MLV	0 – 100

		Dimming Table		
Voltage (V)	Dim %	Flux (lm)	CCT (K)	R9
18.2	1%	27	1933	92
19.0	10%	268	1932	93
19.8	20%	535	1977	94
20.6	30%	803	2062	97
21.4	40%	1070	2171	98
22.1	50%	1338	2294	98
22.7	60%	1606	2418	96
23.3	70%	1873	2531	96
23.8	80%	2141	2619	96
24.3	90%	2408	2671	96
24.8	100%	2676	2673	96



## **Power Consumption**

Tested at full power with PDC Series power supplies.

	LLWD60	X2-VHO
Nominal Length	W/ft	Total Wattage
1	11.3	12.1
2	10.3	20.5
3	10.4	32.1
4	10.1	40.5
5	10.1	50.3
6	9.6	57.4
7	9.5	66.3
8	9.1	72.9
9	9.0	80.8
10	8.8	87.5
11	8.7	96.0
12	8.0	95.6



## Voltage Drop Calculator

The below chart assumes nominal voltage of 24 Volts and a Voltage Drop Allowance of 3% through the wire

Wattage		Maxi	mum Wire Lengt	h From Power Su	upply to Start of F	Run [ft]	
[₩]	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG
5	1088.2	684.4	430.3	270.6	170.2	107.1	67.3
10	544.1	342.2	215.1	135.3	85.1	53.5	33.7
15	362.7	228.1	143.4	90.2	56.7	35.7	22.4
20	272.0	171.1	107.6	67.7	42.6	26.8	16.8
25	217.6	136.9	86.1	54.1	34.0	21.4	13.5
30	181.4	114.1	71.7	45.1	28.4	17.8	11.2
35	155.5	97.8	61.5	38.7	24.3	15.3	9.6
40	136.0	85.5	53.8	33.8	21.3	13.4	8.4
45	120.9	76.0	47.8	30.1	18.9	11.9	7.5
50	108.8	68.4	43.0	27.1	17.0	10.7	6.7
55	98.9	62.2	39.1	24.6	15.5	9.7	6.1
60	90.7	57.0	35.9	22.6	14.2	8.9	5.6
65	83.7	52.6	33.1	20.8	13.1	8.2	5.2
70	77.7	48.9	30.7	19.3	12.2	7.6	4.8
75	72.5	45.6	28.7	18.0	11.3	7.1	4.5
80	68.0	42.8	26.9	16.9	10.6	6.7	4.2
85	64.0	40.3	25.3	15.9	10.0	6.3	4.0
90	60.5	38.0	23.9	15.0	9.5	5.9	3.7
96	56.7	35.6	22.4	14.1	8.9	5.6	3.5

## **Power Supplies**

See fixture and power supply instructions & spec sheet for wiring information. Dimming possible in select models - view Luminii website for list of compatible dimmers.

### Ordering Code Phase Dimming Power Supply 1% 120VAC - 277VAC

MODEL	INPUT CC	NTROL	ENVIRONMENT	WATTAGE	OUTPUT	OUTPUT CONTROL			-96-24-DC
	-		-		_	-		r3-rn-D	-90-24-DC
-Power Supp	lv, <b>PH</b> -Phase [	Jimming	D-Dry	<b>06</b> -06 \//a#c	24-24 VDC	DC - Direct Current			
120-277VA		ELV, MLV)	D'DIY	<b>70</b> 70 70 10	24 24 100				[L
							INPUT Ground		
V/ELV/TRIAC	- 1% dimming, c	onsult dim	ming compatibility ch	art ( <u>Link</u> )					N
V/ELV/TRIAC	- 1% dimming, c	onsult dim	ming compatibility ch	art ( <u>Link</u> )			120 - 277VAC Ground		NG R THE WHITE, GRE CONNECT TO EL
V/ELV/TRIAC	- 1% dimming, co 96W	onsult dim	ming compatibility cł	a <b>rt</b> ( <u>Link</u> )			120 - 277VAC Ground		R THE WHITE, GRE
		onsult dim	ming compatibility ch	aart ( <u>Link</u> )			120 - 277VAC Ground		R THE WHITE, GRE
MODELS	96W	onsult dim	ming compatibility cł	lart ( <u>Link</u> )			120 - 277VAC Ground		R THE WHITE, GRE