

LLWD51WET -WHT

Features

The LineLED WD51 Wet Tube is a small profile, excellent color quality, energy efficient Warm Dim LED Strip for IP65, IP67, and IP68 rated wet installations. LineLED WD51 Wet Tube has three different incandescent dimming curves from either 2400K, 2700K, or 3000K at full brightness down to 1800K at the lowest dim levels. Compatibility with 0-10V, DALI, DALI2, MLV, ELV, and Incandescent dimmers simplifies installation.

To maintain IP65, IP67, and IP68 ratings, LineLED WD51 Wet Tube is factory sealed and bonded. Order in exact lengths required for install, LineLED WD51 Wet Tube is not field cuttable.
IP Rating of strip is equal to the lowest IP rating of section start and end options

Mounting
LLED strip is equipped with 3M™ adhesive tape.

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

Approvals
IP65, IP67, and IP68 Rated

Operating voltage
24 VDC

Average Life (L70)
50,000 hours

Warranty
5 years

IP65 IP67 IP68 Warm Dimming

Declare. CE Single Bin +/- 30 CCT LM80 RoHS c UL us LISTED TITLE 24 JA8 COMPLIANT DIM

Technical information

TYPE	LLWD51WET-WHT					
OUTPUT OPTIONS	**SO (18K-24K)**	**SO (18K-27K)**	**SO (18K-30K)**	**HO (18K-24K)**	**HO (18K-27K)**	**HO (18K-30K)**
Lumens Output (all channels full on)	156 lm/ft	168 lm/ft	173 lm/ft	327 lm/ft	354 lm/ft	364 lm/ft
Average Power Consumption (for a 4' section)	2.3 W/ft			4.7 W/ft		
Efficacy	68 lm/W	73 lm/W	76 lm/W	69 lm/W	75 lm/W	77 lm/W
Cutting Increment (in)	1.64"			1.64"		
Pitch Length	0.23"			0.23"		
Max Run Length (in series)	37.0 ft			22.0 ft		
Dimensions	0.47" W x 0.24" H			0.47" W x 0.24" H		
Ambient Operating Temperature Range*	-15°F – 125°F (-25°C – 50°C)			-15°F – 115°F (-25°C – 45°C)		

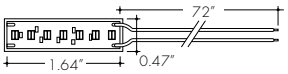
*Ambient Operating Temperature Range to maintain L70 of 50K+ hours in normal conditions. Exceeding Ambient Operating Temperature Range may result in decreased life/output. Consult Technical Support for specific inquires.

CCT	TM-30 CRI	R_f	R_g	R_9
1800K	92	85	91	86
2400K	96	95	104	97
2700K	96	95	104	96
3000K	95	95	104	90

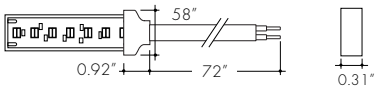
CCT	Multiplier (reference - 18K-30K)
18K-24K	0.90
18K-27K	0.97
18K-30K	1.00

Section Start/End Options

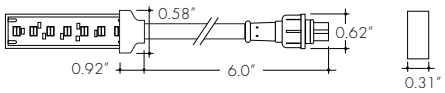
SL65
72" Soldered Leads, IP65 rated



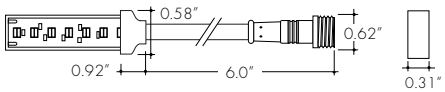
SL68
72" Soldered Leads, IP68 rated



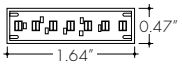
LF
Female Quick Connect End, IP67 rated



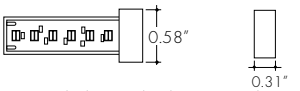
LM
Male Quick Connect End, IP67 rated



NC
No Connector



IP65 rated when used with SL65 selection



IP67 rated when used with LM or LF selection

IP68 rated when used with SL68 selection

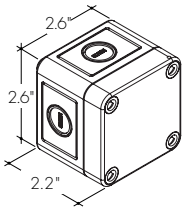
Ordering code

MODEL	OUTPUT	CCT	SECTION START[1]	SECTION END[1]	LENGTH
LLWD51WET-WHT-LineLED WD51 White Wet Tube	SO-Standard HO-High	18K-24K-1800K - 2400K 18K-27K-1800K - 2700K 18K-30K-1800K - 3000K	SL65-IP65 Soldered lead wires (72") SL68-IP68 Soldered lead wires (72") LF-IP67 Female Quick Connect LM-IP67 Male Quick Connect NC-No Connector	SL65-IP65 Soldered lead wires (72") SL68-IP68 Soldered lead wires (72") LF-IP67 Female Quick Connect LM-IP67 Male Quick Connect NC-No Connector	Lengths specified to the inch; ordering code rounded up to one-foot increments. See chart above for max run length

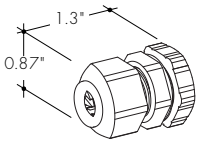
1 - Additional Connectors and Leads available, see below.

Accessories

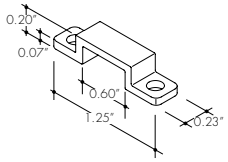
LVSP-WET
Splice box: wet rated, low voltage, gray, IP66



LVSP-WET-CM
Splice box connector, low voltage, gray

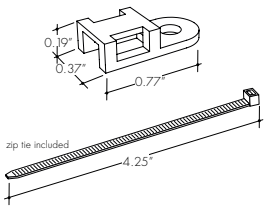


CL2
Mounting clip



Recommended every 12" when LineLED strip is facing down

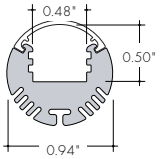
LL-ZIP
Cable/Wire Strain Relief Clip



Lens Options / Light Transmission

RO CHANNEL -ROC
(Link to Web)





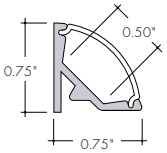
Lens	Clear	Frosted
Transmission %	86%	67%
Dotting*	CD	ND

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

K45R CHANNEL -K45RC
(Link to Web)





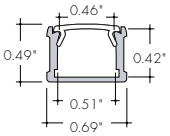
Lens	Round Frosted
Transmission %	65%
Dotting*	ND

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

KM CHANNEL -KMC
(Link to Web)



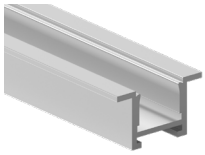


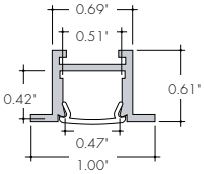
Lens	Clear	Half Frosted	Frosted	Flat Frosted	Raised	Narrow Beam Grazer
Transmission %	82%	65%	51%	47%	58%	56%
Dotting*	CD	CD	ND	ND	ND	N/A

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option
- Narrow Beam Grazer Lens (GR)

KRM CHANNEL -KRMC
(Link to Web)





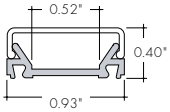
Lens	Clear	Half Frosted	Frosted	Flat Frosted	Narrow Beam Grazer
Transmission %	82%	65%	51%	47%	56%
Dotting*	CD	CD	ND	ND	N/A

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option
- Narrow Beam Grazer Lens (GR)

BAR CHANNEL -BARC
(Link to Web)





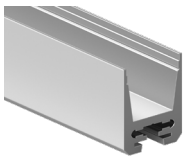
Lens	Frosted	Narrow Beam	Medium	Batwing	Asymmetric
Transmission %	65%	63%	56%	74%	56%
Dotting*	ND	N/A	N/A	N/A	N/A

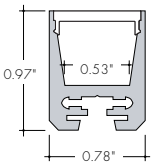
*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

Compatible with Frosted Lens Only

ALS20 CHANNEL -ALS20C
(Link to Web)





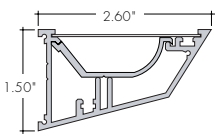
Lens	Clear	Frosted
Transmission %	54%	49%
Dotting*	CD	ND

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

MCAL CHANNEL -MCALC
(Link to Web)



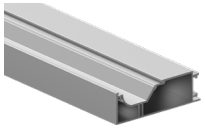


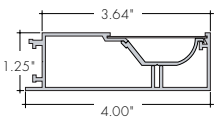
Lens	Long Throw	Tall Throw
Transmission %	91%	91%
Dotting*	CD	N/A

*At 100% brightness

NOT Compatible with
- Tall Throw Reflector Lens (TT)

MREC CHANNEL -MRECC
(Link to Web)





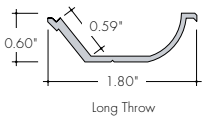
Lens	Long Throw	Tall Throw
Transmission %	91%	91%
Dotting*	CD	CD

*At 100% brightness

Lens Options / Light Transmission

CLT CHANNEL -CLTC
(Link to Web)





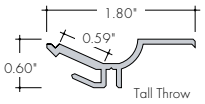
Lens	No Lens
Transmission %	100%
Dotting*	CD

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

CTT CHANNEL -CTTC
(Link to Web)





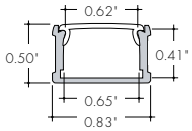
Lens	No Lens
Transmission %	100%
Dotting*	CD

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

KXL CHANNEL -KXLC
(Link to Web)

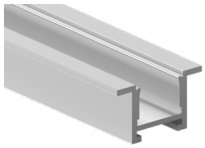


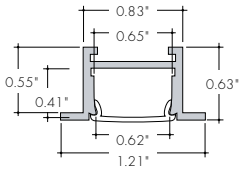


Lens	Clear	Half Frosted	Frosted
Transmission %	86%	69%	54%
Dotting*	CD	CD	ND

*At 100% brightness

KRXL CHANNEL -KRXLC
(Link to Web)



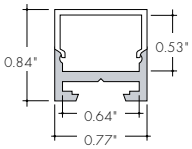


Lens	Clear	Half Frosted	Frosted
Transmission %	86%	69%	54%
Dotting*	CD	CD	ND

*At 100% brightness

CLA CHANNEL -CLAC
(Link to Web)



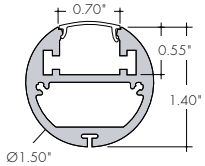


Lens	Rounded Square Frosted	Square Frosted
Transmission %	62%	65%
Dotting*	ND	ND

*At 100% brightness

RO15 CHANNEL -RO15C
(Link to Web)



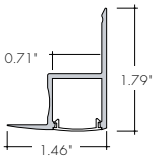


Lens	Clear	Frosted
Transmission %	76%	50%
Dotting*	CD	ND

*At 100% brightness

ALE CHANNEL -ALEC
(Link to Web)



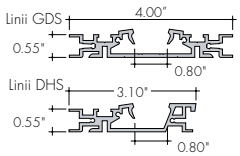


Lens	Clear	Frosted
Transmission %	58%	37%
Dotting*	CD	ND

*At 100% brightness

LIN CHANNEL -LINC
(Link to Web)



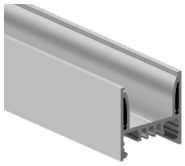


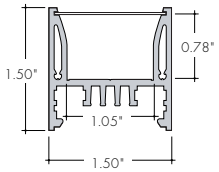
Lens	Frosted	Frosted Silicone	No Lens
Transmission %	48%	56%	82%
Dotting*	ND	N/A	CD

*At 100% brightness

NOT Compatible with
- Frosted Silicone Lens (FS)

KILO CHANNEL -KILOC
(Link to Web)



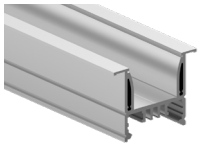


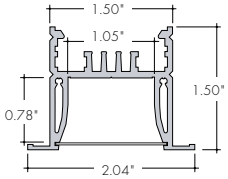
Lens	Clear	Frosted	No Lens
Transmission %	85%	75%	90%
Dotting*	CD	ND	CD

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

KILOR CHANNEL -KILORC
(Link to Web)





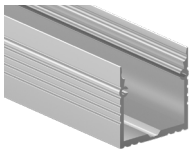
Lens	Clear	Frosted	No Lens
Transmission %	85%	75%	90%
Dotting*	CD	ND	CD

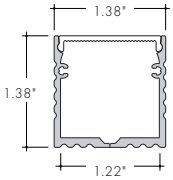
*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

Lens Options / Light Transmission

PLA CHANNEL -PLAC
(Link to Web)



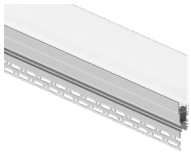


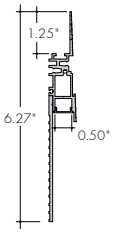
Lens	Clear	Frosted
Transmission %	56%	34%
Dotting*	CD	ND

*At 100% brightness

NOT Compatible with
- LF Connect Option
- LM Connect Option
- SL68 Connect Option

KREST EDGE CHANNEL -KRESTC-E
(Link to Web)

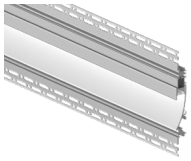


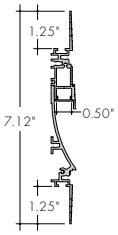


Lens	Frosted
Transmission %	45%
Dotting*	ND

*At 100% brightness

KREST REVEAL CHANNEL -KRESTC-R
(Link to Web)

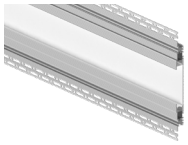


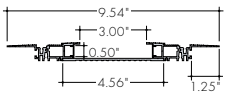


Lens	Frosted
Transmission %	45%
Dotting*	ND

*At 100% brightness

KREST DUO CHANNEL -KRESTC-D
(Link to Web)

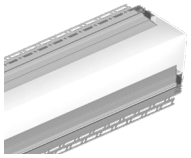


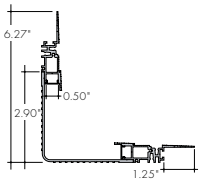


Lens	Frosted
Transmission %	41%
Dotting*	ND

*At 100% brightness

KREST CORNER CHANNEL -KRESTC-C
(Link to Web)



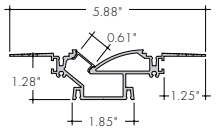


Lens	Frosted
Transmission %	31%
Dotting*	ND

*At 100% brightness

KREST WASH CHANNEL -KRESTC-W
(Link to Web)





Lens	Frosted
Transmission %	45%
Dotting*	ND

*At 100% brightness

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).

Led Dotting Reference

Use complete Dotting Chart Tool online for more dotting information

Dotting Chart Tool

I'm also click-able

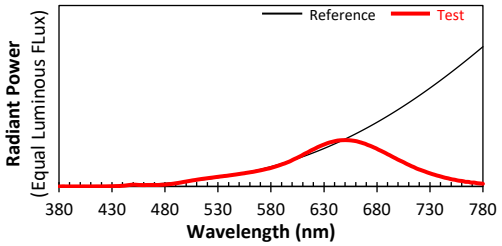

CD - Clear Dotting

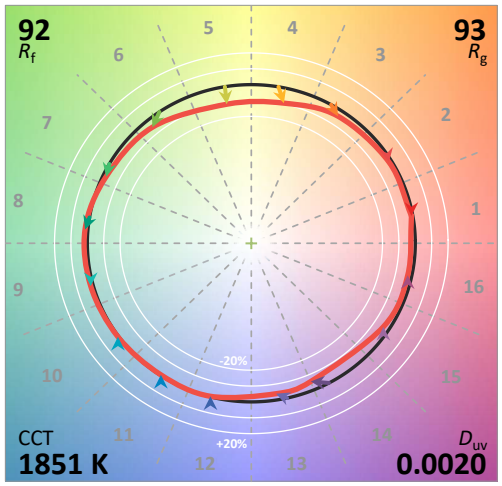

SD - Slight Dotting

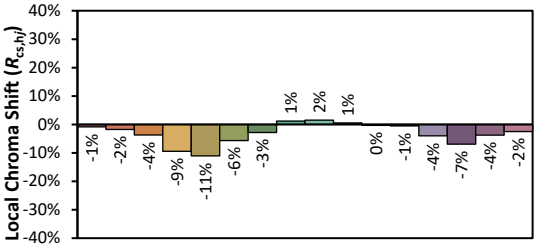

ND - No Dotting

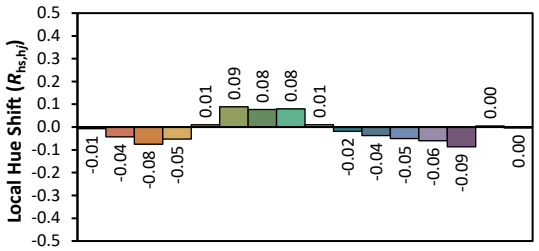
TM-30-18: Data

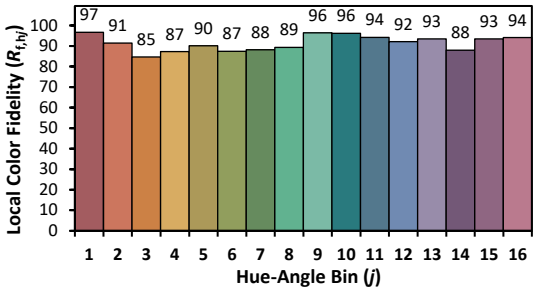
1800K (1 channel on)



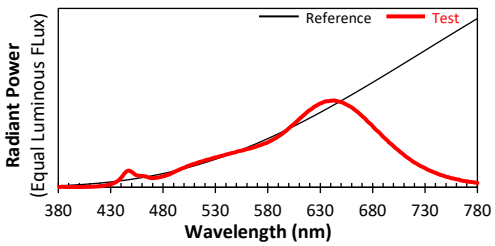


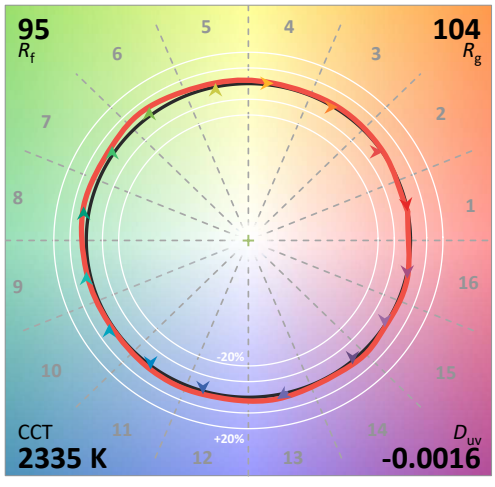


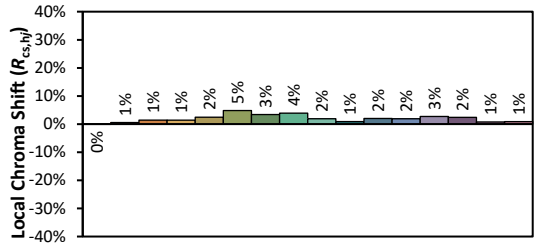


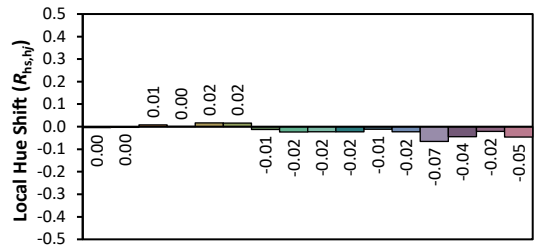


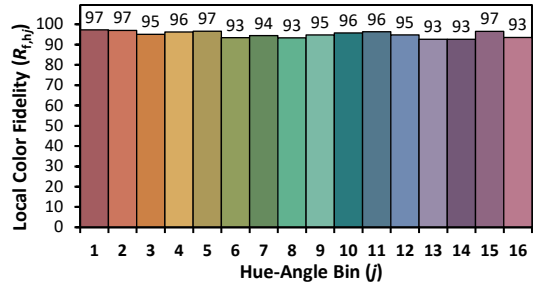
2400K (Both channels on at full brightness)





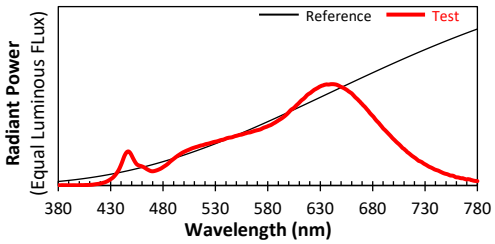


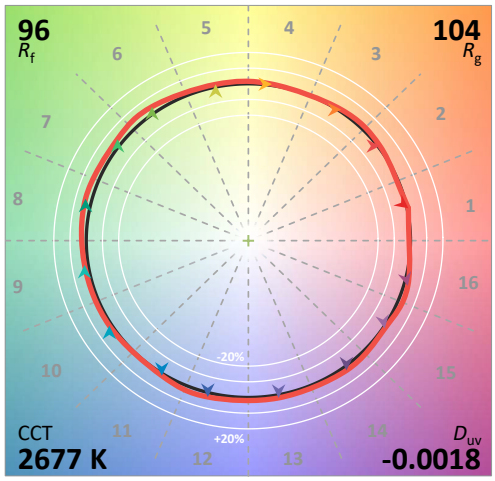


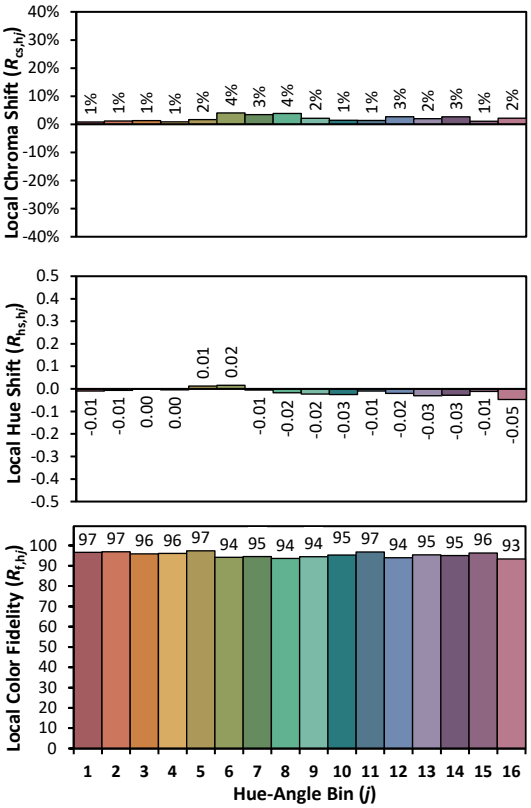


TM-30-18: Data

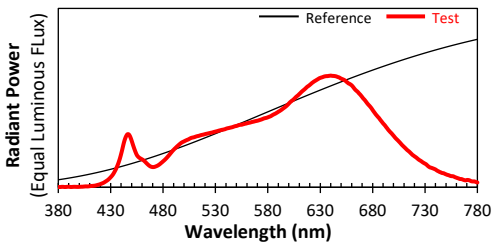
2700K (Both channels on at full brightness)

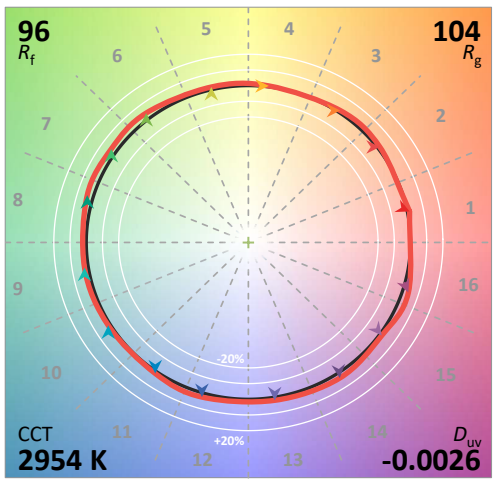


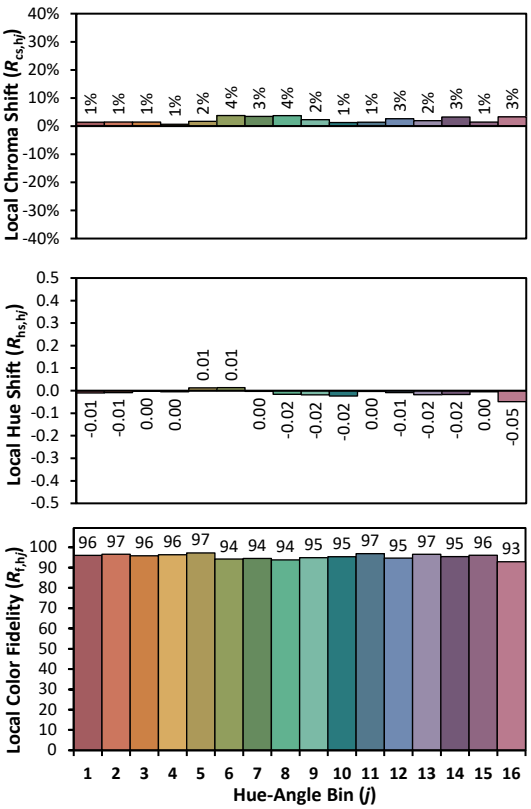




3000K (Both channels on at full brightness)

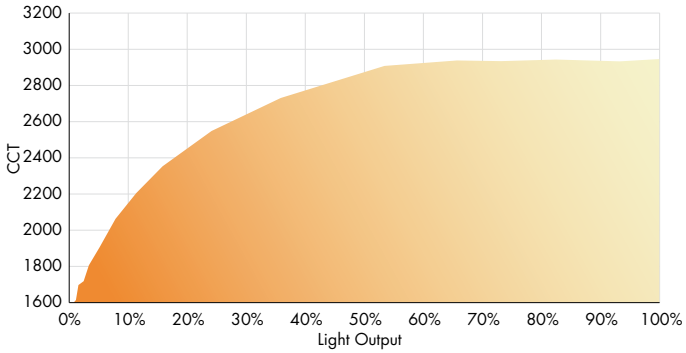




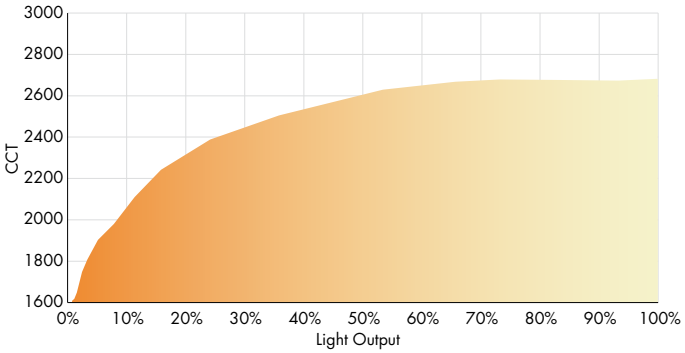


Warm Dim Curve

LLWD51WET-WHT-XX-18K-30K



LLWD51WET-WHT-XX-18K-27K



Dimming Table

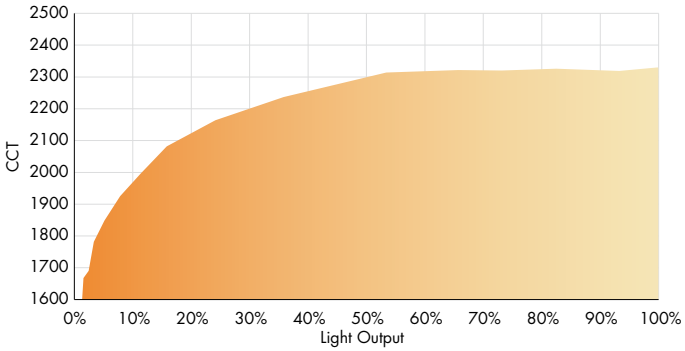
Voltage (V)	Dim %	Flux (lm)	CCT (K)	R9
2.3	1%	12	1601	79
3.1	1%	18	1614	75
4.3	2%	25	1697	86
5.5	2%	38	1719	84
6.9	3%	53	1806	91
8.0	5%	81	1906	95
9.1	8%	123	2063	98
10.7	11%	178	2205	93
11.7	16%	248	2353	90
13.2	24%	377	2548	89
14.6	36%	560	2731	89
16.1	53%	836	2908	89
18.1	66%	1029	2938	90
19.6	73%	1146	2934	89
21.3	83%	1292	2943	90
22.9	93%	1459	2933	90
23.8	100%	1564	2946	91
23.8	100%	1564	2947	90

Dimming Table

Voltage (V)	Dim %	Flux (lm)	CCT (K)	R9
2.1	1%	11	1608	86
3.0	1%	16	1618	76
4.3	2%	24	1648	76
5.7	2%	38	1748	88
7.0	4%	56	1808	91
8.3	6%	85	1903	94
9.2	7%	113	1980	96
10.8	11%	168	2110	97
11.8	16%	247	2242	94
13.3	24%	372	2388	93
14.5	34%	527	2505	94
16.1	51%	780	2629	94
18.2	65%	998	2668	95
19.8	73%	1125	2679	96
21.7	83%	1281	2677	96
23.2	93%	1433	2673	95
23.9	100%	1535	2682	96
23.9	100%	1535	2680	95

Warm Dim Curve

LLWD51WET-WHT-XX-18K-24K



Dimming Table

Voltage (V)	Dim %	Flux (lm)	CCT (K)	R9
2.2	1%	11	1543	76
3.1	1%	16	1544	62
4.5	2%	23	1668	80
5.7	2%	34	1690	76
7.1	4%	54	1782	91
8.2	6%	81	1848	93
9.3	8%	115	1925	95
10.6	12%	166	1996	96
11.8	17%	242	2082	97
13.4	25%	354	2164	98
14.5	36%	507	2237	98
16.2	54%	764	2314	98
18.5	65%	917	2322	98
19.7	73%	1031	2320	98
21.6	83%	1181	2326	98
23.2	93%	1320	2319	98
23.9	100%	1417	2330	97
23.9	100%	1417	2328	97

Dimmer Compatibility List - Factory Tested (PS-UNI)

Brand	Model	Part Number	Dimming Type	Dimming Range
Lutron	Diva	DVLV-600P-XX	Phase Control	100% - 0.2%
	Diva	DVELV-300P-XX	Phase Control	100% - 0.2%
	Diva	DVCL-153P-XX	Phase Control	100% - 0%
	Diva	DVSTV	0-10V Control	100% - 0%
	Skylark	SLV-600P-XX	Phase Control	100% - 0.1%
	Skylark	SELV-300P	Phase Control	100% - 0%
	Maestro	MAELV-600	Phase Control	100% - 0%
	Maestro	MACL-153M	Phase Control	100% - 0.2%
	Nova T	NTELV-600	Phase Control	100% - 0.3%
	Nova T	NTLV-600-XX	Phase Control	100% - 0.1%
	Nova T	NTSTV-DV	0-10V Control	100% - 0%
Leviton	Renoir II	AWSMT-MAW	Phase Control	100% - 0%
	Decora	DSL06	Phase Control	100% - 0.3%
	IllumaTech	IPE04-1LZ	Phase Control	100% - 0.3%
	IllumaTech	IP710-LFZ	0-10V Control	100% - 0.2%
Crestron	Cameo	CLW-DIMEX-P	Phase Control	100% - 0.1%
	Cameo	CLW-DIMFLVEX-P	0-10V Control	100% - 0.1%
Legrand	Radiant	WWRL50	Phase Control	100% - 0%
	Radiant	RH4FBL3PW	0-10V Control	100% - 0%
	Pass and Seymour	WSCL450	Phase Control	100% - 0.3%
	Adorne	ADTP703TU	Phase Control	100% - 0%

Power Consumption

Tested at full power with PS-UNI Series power supplies.

LLWD51WET-WHT

Nominal Length (ft)	SO		HO	
	W/ft	Total Wattage	W/ft	Total Wattage
1	2.4	2.4	5.1	5.1
2	2.4	4.8	5.1	10.1
3	2.4	7.2	5.0	15.1
4	2.4	9.6	5.0	19.9
5	2.4	11.9	4.9	24.7
6	2.4	14.2	4.9	29.4
7	2.4	16.5	4.9	34.0
8	2.3	18.7	4.8	38.5
9	2.3	21.0	4.8	42.9
10	2.3	23.2	4.7	47.3
11	2.3	25.4	4.7	51.5
12	2.3	27.6	4.6	55.7
13	2.3	29.7	4.6	59.8
14	2.3	31.8	4.6	63.8
15	2.3	33.9	4.5	67.7
16	2.3	36.0	4.5	71.5
17	2.2	38.1	4.4	75.2
18	2.2	40.1	4.4	78.9
19	2.2	42.1	4.3	82.4
20	2.2	44.1	4.3	85.9
21	2.2	46.1	4.3	89.3
22	2.2	48.0	4.2	92.6
23	2.2	49.9		
24	2.2	51.8		
25	2.1	53.7		
26	2.1	55.5		
27	2.1	57.3		
28	2.1	59.1		
29	2.1	60.9		
30	2.1	62.7		
31	2.1	64.4		
32	2.1	66.1		
33	2.1	67.8		
34	2.0	69.5		
35	2.0	71.1		
36	2.0	72.7		
37	2.0	74.3		

Voltage Drop Calculator

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

Wattage [W]	Maximum Wire Length From Power Supply to Start of 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.

For use with Warm Dim

Ordering Code - Universal Dimming Power Supplies 0.1% 120VAC - 277VAC

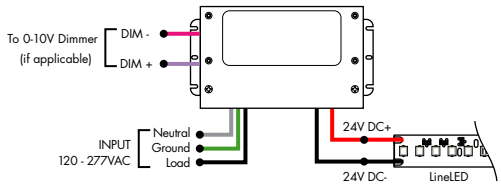
MODEL		INPUT CONTROL		WATTAGE		OUTPUT
	–		–		–	
PS - Power Supply, 120-277VAC		**UNI** - 0-10V Dimming (0.1%), Phase Dimming (0.1%)		**30** - 30 Watts **60** - 60 Watts **96** - 96 Watts **3x96** - 3x96 Watts		**24** - 24 VDC

Compatibility: View a complete list of compatible dimmers on the PS-UNI product page.

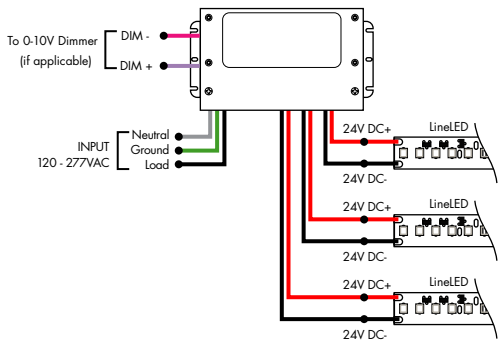
0-10V - 0.1% dimming
MLV/ELV/TRIAC - 0.1% dimming, consult dimming compatibility chart

MODELS	PS-UNI-30W	PS-UNI-60W	PS-UNI-96W	PS-UNI-3X96W
Length	6.50"	7.40"	8.66"	11.85"
Width	3.73"	3.73"	3.73"	4.32"
Depth	1.61"	1.61"	1.61"	1.81"

PS-UNI-30/60/96

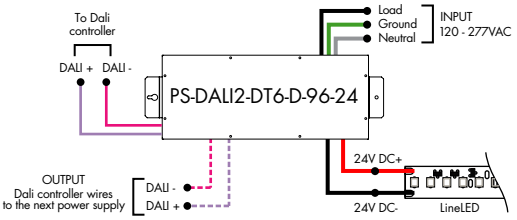


PS-UNI-3X96



Ordering Code - DALI 2 Dimming Power Supplies 0.1% 120VAC - 277VAC

MODEL		INPUT CONTROL		ENVIRONMENT		WATTAGE		OUTPUT
	-		-		-		-	
PS - Power Supply, 120-277VAC		**DALI2-DT6** - DALI2 DT6 (0.1%)		**D** - Dry		**96** - 96 Watts		**24** - 24 VDC



Model	96W
Length	14.40"
Width	5.20"
Depth	2.60"

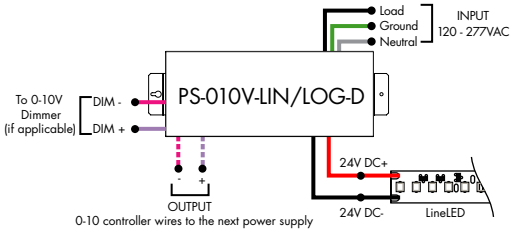
Power Supplies

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

For use with Warm Dim

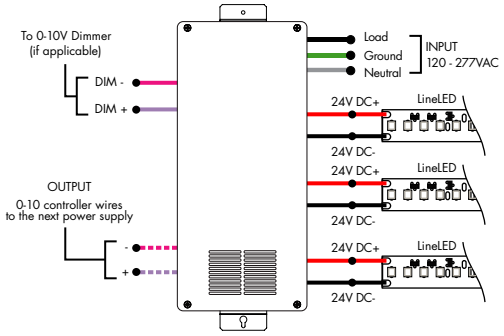
Ordering Code - 0-10V Dimming Power Supplies 0.1% 120VAC - 277VAC

MODEL	INPUT CONTROL	ENVIRONMENT	WATTAGE	OUTPUT
PS - Power Supply, 120-277VAC	010V-LIN - 0-10V Dimming (0.1%), Linear 010V-LOG - 0-10V Dimming (0.1%), Logarithmic	D - Dry	96 - 96 Watts 3x96 - 3x96 Watts	24 - 24 VDC



MODELS	96W	3X96
Length	14.40"	15.00"
Width	5.20"	6.62"
Depth	2.60"	4.45"

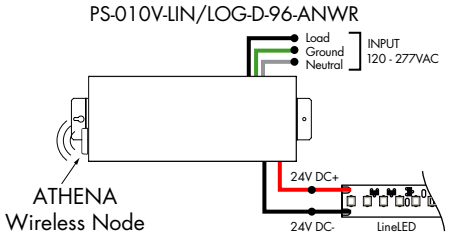
PS-010V-LIN/LOG-D-3X96



Ordering Code - Athena 0-10V LED Driver

MODEL	INPUT CONTROL	ENVIRONMENT	WATTAGE	OUTPUT	FEATURE
PS - Power Supply, 120-277VAC	010V-LIN - 0-10V Dimming (0.1%), Linear 010V-LOG - 0-10V Dimming (0.1%), Logarithmic	D - Dry	96 - 96 Watts	24 - 24 VDC	AWNR - Athena Wireless Node

PS-010V-LIN/LOG-D-96-ANWR



MODELS	96W
Length	14.40"
Width	5.20"
Depth	2.60"