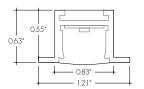
## Linear Illumination System



#### **Features**



- 24VDC Class 2 fixtures made to order up to 144". Fixtures can be linked up to 48' depending on output
- Suitable for architectural reveals, millwork, recessed, , accent light applications
- Approved for closet/storage space installation per NEC 410.16(A) (3) and 410.16(C)(5)
- Class 2 listed for damp locations
- Dot free even illumination with frosted lens
- High Color Quality options offer premium quality and vibrant colors with R9 values up to 97
- High Efficacy options offer best in class output and efficacy with over 780 lm/ft and up to 110 lm/W
- Proprietary strong bond solder method handles up to 50 lbs of pull force on wire leads and connectors
- 5 Year warranty



#### Finish Options (see page 2 for additional information)

Silver Anodized
Black

Bronze

















### **Technical Information**

MODEL	High Color Quality		High I	fficacy		High Efficacy
OUTPUT OPTIONS	60X2HO	HE48LO	HE48SO	HE48MO	HE48HO	HE64VHO
Lumens Output (3000K) (with a Clear Lens)	526 lm/ft	209 lm/ft	289 lm/ft	386 lm/ft	619 lm/ft	783 lm/ft
Average Power Consumption (for a 4' section)	7.3 W/ft	1.9 W/fr	2.8 W/ft	3.5 W/ft	6.5 W/ft	7.5 W/ft
Efficacy	72 lm/W	110 lm/W	103 lm/W	110 lm/W	95 lm/W	104 lm/W
Max Run Length (in series)	26 ft	48 ft	42 ft	33 ft	21 ft	15 ft
Max Ambient Temperature*	50°C [122°F]		50°C	[122°F]		50°C [122°F]

<sup>\*</sup>Max Ambient Temperature to maintain 170 of 50k+ hours. Exceeding Max Ambient Temperature may result in decreased life/output, Consult Technical Support for specific inquiries.

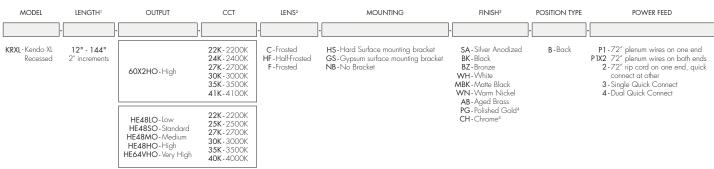
#### High Color Quality (60X2)

	Multiplier		TM	-30	
ССТ	(reference - 3000K)	CRI	$R_{f}$	$R_{g}$	R <sub>9</sub>
1900K	0.55	96	94	97	90
2200K	0.70	96	95	101	89
2400K	0.72	98	97	101	91
2700K	0.74	97	96	101	91
3000K	1.00	97	95	104	97
3500K	1.02	97	94	105	97
4100K	1.07	97	90	99	97

#### High Efficacy (HE48/HE64)

CCT	Multiplier		TM	-30	
ССТ	(reference - 3000K)	CRI	$R_{f}$	$R_g$	R <sub>9</sub>
2200K	0.73	92	91	97	42
2500K	0.81	93	96	96	62
2700K	0.94	92	90	99	58
3000K	1.00	92	89	99	57
3500K	1.02	92	89	99	60
4000K	1.02	92	86	94	71

### **Ordering Code**

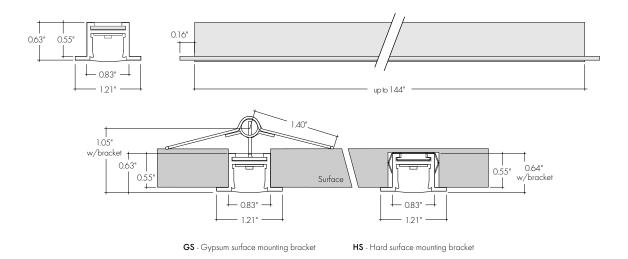


<sup>1 -</sup> Custom lengths and increments are available, please consult Inside Sales with specific request.
2 - All High Elficacy options can be used to comply with Title 24 JAB. High Color Quality options can be used to comply with Title 24 JAB depending on Output, CCT, and lens selections. See multiplier charts to calculate specific efficacies.

<sup>3</sup> - Non SA finishes may have extended lead times. Custom RALs are available, please consult Inside Sales with specific request. 4 - Polished Gold finishes have a maximum fixture length of  $48^{\circ}$ , and Chrome finishes have a maximum fixture length of  $72^{\circ}$ .

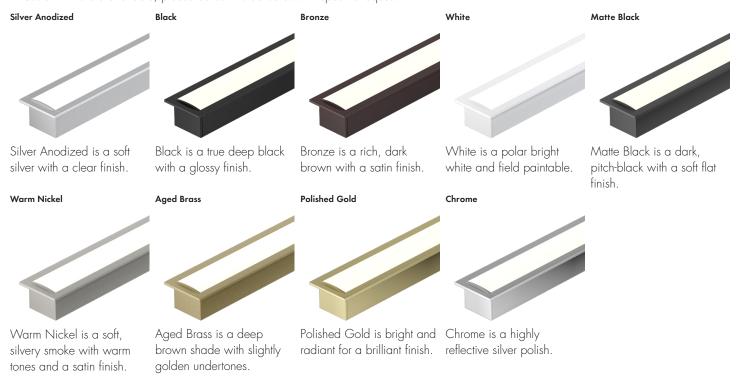


#### **Product Dimensions**



#### **Finish Options**

- Finish options are available in a wide variety, allowing for complete customization of style and aesthetic.
- Non Silver Anodized finishes may have extended lead times.
- Polished Gold finishes have a maximum fixture length of 48", and Chrome finishes have a maximum fixture length of 72".
- Custom RALs are available, please consult Inside Sales with specific request.





#### **Powerfeeds and Connectors**

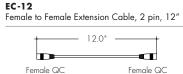
### **Linking and Extension Cable Options**



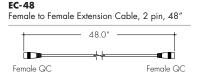
Male quick-connect, 2 pin, 12"

Male quick-connect long, 2 pin, 70"

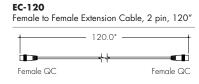
Female Quick Connect

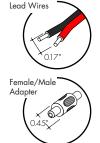


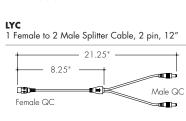
Male QC

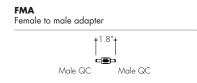


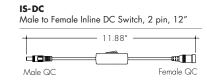
Male QC





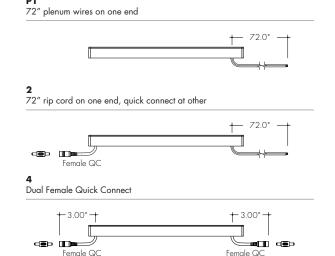






#### **Powerfeeds Position/Type**



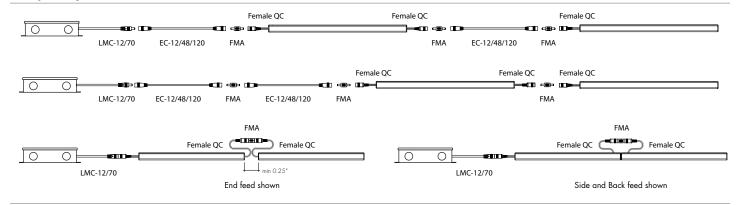






All wires are 18 AWG unless otherwise specified

#### Sample Layout





### **Light Transmission and Dotting**

#### Lens/Accessory

Output Options	Clear Lens	Half-Frosted Lens	Frosted Lens
60X2HO	CD	SD	ND
HE48LO	CD	CD	ND
HE48SO	CD	CD	ND
HE48MO	CD	CD	ND
HE48HO	CD	CD	ND
HE64VHO	CD	CD	ND
Transmission Percentage	100%	84%	62%



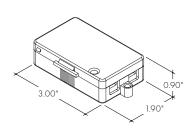
CD - Clear Dotting

SD - Slight Dotting

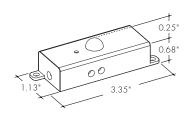
ND - No Dotting

### **Accessory Options**

**LVSP-4T-BK**Low Voltage, 4 Terminal Splice Box, Black

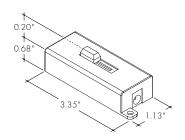


**OS-DC-F4-BK**Occupancy Sensor



Available in Black or White. Male Quick Connect, FMA, LMC, LYC, or IS-DC are required for input and output.

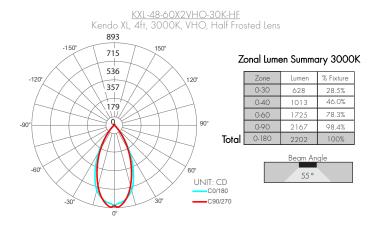
**DIM-DC-F4-BK** 24VDC Low Voltage In-line Dimmer Module

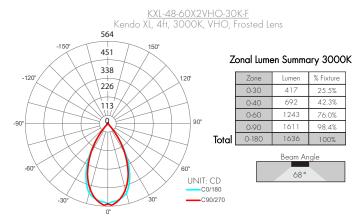


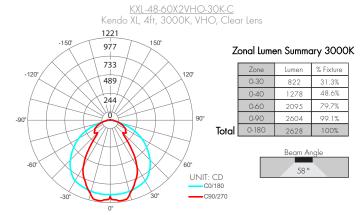
Male Quick Connect, FMA, LMC, LYC, or IS-DC are required for input and output.



### **Photometry**







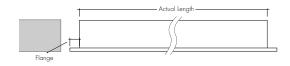


### **Power Consumption**

Tested at Full Power with PDC Series power supplies.
Standard Nominal Lengths offered provide minimal shadowing. For alternate lengths, please consult Inside Sales with specific request.

#### High Color Quality (60X2)

Nominal Length	Back Feed Actual	Watts									
(in)	Length	НО									
12	10 11/16	8.3	47	_	_	82	81	45.4	117	116 3/16	61.1
13	12 2/16	8.3	48	47 4/16	28.2	83	82 7/16	46.3	118	117 9/16	62.1
14	13 8/16	8.9	49	48 11/16	29.3	84	83 13/16	46.7	119	119	62.5
15	14 15/16	9.5	50	_	_	85	-	_	120	-	-
16	-	-	51	50 1/16	29.9	86	85 4/16	47.2	121	120 6/16	63.5
17	16 5/16	10.1	52	51 8/16	31.0	87	86 10/16	48.1	122	121 13/16	63.8
18	17 12/16	11.3	53	52 14/16	31.5	88	-	_	123	-	_
19	-	_	54	_	_	89	88 1/16	48.5	124	123 3/16	64.2
20	19 2/16	11.9	55	54 5/16	32.1	90	89 7/16	49.4	125	124 10/16	64.9
21	20 9/16	13.1	56	55 11/16	33.1	91	90 14/16	49.9	126	-	_
22	21 15/16	13.7	57	-	_	92	-	-	127	126	65.2
23	-	_	58	57 2/16	33.7	93	92 4/16	50.3	128	127 7/16	65.9
24	23 6/16	14.3	59	58 8/16	34.8	94	93 11/16	51.2	129	128 13/16	66.3
25	24 12/16	15.5	60	59 15/16	35.3	95	_	_	130	_	
26	_	_	61	_	_	96	95 1/16	51.7	131	130 4/16	66.6
27	26 3/16	16.1	62	61 5/16	35.9	97	96 8/16	52.6	132	131 10/16	67.3
28	27 9/16	17.3	63	62 12/16	36.9	98	97 14/16	53.0	133	_	
29	29	17.9	64	_	-	99	_	_	134	133 1/16	67.6
30	-	_	65	64 2/16	37.4	100	99 5/16	53.5	135	134 7/16	68.2
31	30 6/16	19.1	66	65 9/16	38.4	101	100 11/16	54.4	136	135 14/16	68.5
32	31 13/16	19.7	67	66 15/16	38.9	102	-	_	137	_	-
33	_	_	68	_	_	103	102 2/16	54.8	138	137 4/16	68.8
34	33 3/16	20.3	69	68 6/16	39.4	104	103 8/16	55.7	139	138 11/16	69.3
35	34 10/16	21.6	70	69 12/16	40.4	105	104 15/16	56.1	140	_	
36	_	_	71	_	_	106	_	_	141	140 1/16	69.6
37	36	22.2	72	71 3/16	40.9	107	106 5/16	56.5	142	141 8/16	70.2
38	37 7/16	23.3	73	72 9/16	41.9	108	107 12/16	57.4	143	142 14/16	70.5
39	38 13/16	23.9	74	74	42.4	109	-	_	144	-	_
40	-	_	75	_	_	110	109 2/16	57.9			
41	40 4/16	24.4	76	75 6/16	43.2	111	110 9/16	58.8	-		
42	41 10/16	25.5	77	76 13/16	43.7	112	111 15/16	59.3	-		
43	-	-	78	_	-	113	-	_	-		
44	43 1/16	26.0	79	78 3/16	44.1	114	113 6/16	59.7	-		
45	44 7/16	27.1	80	79 10/16	45.0	115	114 12/16	60.7	-		
46	45 14/16	27.7	81	-	-	116	-	_	-		





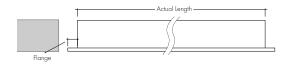
### **Power Consumption**

Tested at Full Power with PDC Series power supplies.

Standard Nominal Lengths offered provide minimal shadowing. For alternate lengths, please consult Inside Sales with specific request.

#### High Efficacy (HE48)

Nominal	Back Feed		W	atts		Nominal	Back Feed		W	atts		Nominal			W	atts		Nominal			W	atts	
Length (in)	Actual Length	LO	so	МО	но	Length (in)	Actual Length	LO	so	МО	НО	Length (in)	Actual Length	LO	so	МО	НО	Length (in)	Actual Length	LO	so	МО	НО
12	10 11/16	1.7	2.5	3.5	5.7	47	46 2/16	6.9	10.7	13.3	24.7	82	81 9/16	12.5	19.9	23.9	42.2	117	-	_	_	-	_
13	12 11/16	1.7	2.5	3.5	5.7	48	-	_	-	-	-	83	-	_	-	-	_	118	117	17.5	27.7	34.3	58.7
14	_	-	-	-	-	49	48 2/16	7.1	11.2	13.9	25.4	84	83 9/16	12.8	20.3	24.5	43.1	119	119	17.8	28.1	34.9	59.6
15	14 10/16	2.0	3.0	4.0	7.2	50	-	_	-	-	-	85	-	_	_	-	_	120	-	_	_	_	-
16	-	-	-	-	_	51	50 1/16	7.4	11.7	14.5	26.3	86	85 8/16	13.1	20.8	25.1	44.1	121	120 15/16	18.1	28.6	35.5	60.5
17	16 10/16	2.4	3.5	4.6	8.7	52	-	-	-	-	-	87	-	-	-	-	-	122	-	-	-	-	-
18	-	_	-	-	_	53	52 1/16	7.7	12.3	15.1	27.4	88	87 8/16	13.4	21.3	25.7	45.0	123	122 15/16	18.3	29.0	36.0	62.1
19	18 9/16	2.7	3.9	5.2	10.2	54	-	-	-	-	_	89	_	-	-	-	_	124	-	_	-	-	
20	_	_	-	-	_	55	54	8.0	12.9	15.7	28.5	90	89 7/16	13. <i>7</i>	21.7	26.3	46.0	125	124 14/16	18.4	29.5	36.6	63.8
21	20 9/16	3.0	4.4	5.8	11.7	56	56	8.4	13.5	16.4	29.5	91	_	-	-	-	-	126	-	_	-	-	_
22	_	-	_	_	_	57	-	-	-	-	_	92	91 7/16	14.0	22.1	26.9	47.0	127	126 14/16	18.6	29.9	37.2	65.4
23	22 8/16	3.4	4.9	6.4	13.2	58	57 15/16	8.7	14.0	17.0	30.6	93	_	_	-	-	_	128	_	_	-	-	_
24	_	-	_	-	_	59	-	-	-	-	_	94	93 6/16	14.3	22.6	27.5	47.9	129	128 13/16	18.8	30.4	37.7	67.0
25	24 8/16	3.7	5.4	7.0	14.7	60	59 15/16	9.0	14.6	17.6	31.6	95	_	-	-	-	_	130	_	_	-	-	_
26	-	-	_	-	-	61	-	-	-	-	_	96	95 6/16	14.4	22.8	27.8	48.4	131	130 13/16	18.9	30.8	38.3	68.6
27	26 7/16	4.1	5.9	7.5	15.8	62	61 14/16	9.4	15.2	18.2	32.6	97	_	_	-	-	_	132	-	_	_	-	
28	-	_	-	-	_	63	_	-	-	-	_	98	97 5/16	14.7	23.3	28.5	49.4	133	132 12/16	19.1	31.2	38.9	70.2
29	28 7/16	4.4	6.4	8.1	16.8	64	63 14/16	9.7	15.6	18.7	33.7	99	_	_	-	-	_	134	-	_	_	-	
30	_	_	-	-	_	65	_	-	-	-	_	100	99 5/16	15.0	23.7	29.0	50.4	135	134 12/16	19.3	31.8	39.4	70.7
31	30 6/16	4.8	6.9	8.7	17.9	66	65 13/16	10.0	16.1	19.2	34.7	101	_	_	-	-	_	136	-	_	_	-	_
32	-	-	-	-	_	67	-	_	_	-	-	102	101 4/16	15.3	24.1	29.6	51.3	137	136 11/16	19.5	32.3	40.0	71.2
33	32 6/16	5.0	7.2	9.0	18.5	68	67 13/16	10.4	16.5	19.8	35.7	103	_	-	-	-	_	138	_	_	_	-	
34	_	-	_	_	_	69	-	-	-	-	_	104	103 4/16	15.6	24.6	30.2	52.3	139	138 11/16	19.8	32.8	40.6	71.8
35	34 5/16	5.4	7.7	9.6	19.5	70	69 12/16	10.7	17.0	20.3	36.7	105	_	-	-	-	_	140	_	_	-	-	_
36	-	-	_	-	-	71	-	-	-	-	_	106	105 3/16	15.8	25.0	30.7	53.2	141	140 10/16	20.0	33.3	41.1	72.3
37	36 5/16	5.7	8.2	10.2	20.6	72	71 12/16	11.0	17.4	20.8	37.7	107	_	_	-	-	_	142	-	_	_	-	
38	-	_	_	_	_	73	-	_	_	_	_	108	107 3/16	16.1	25.5	31.3	54.2	143	142 10/16	20.2	33.9	41.7	72.8
39	38 4/16	6.0	8.7	10.8	21.5	74	73 11/16	11.3	17.9	21.4	38.7	109	_	-	-	-	_	144	-	_	-	-	_
40	-	-	-	-	-	75	-	-	-	-	-	110	109 2/16	16.4	25.9	31.9	55.2						
41	40 4/16	6.2	9.2	11.4	22.3	76	75 11/16	11.6	18.4	22.0	39.6	111	_	-	-	-	-	_					
42	-	_	-	_	-	77	-	_	_	_	_	112	111 2/16					_					
43	42 3/16	6.4	9.7	12.0	23.1	78	77 10/16	11.9	18.9	22.7	40.5	113	-	_	_	-	_	_					
44	_	-	-	-	-	79	-	-	-	-	-	114	113 1/16	17.0	26.8	33.1	57.0	_					
45	44 3/16	6.7	10.2	12.6	23.9	80	79 10/16	12.2	19.4	23.3	41.4	115	-	_	_	-	-						
46	-	_	-	_	_	81	-	_	_	_	_	116	115 1/16	17.3	27.3	33.7	57.9	-					





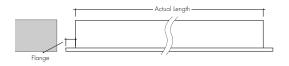
### **Power Consumption**

Tested at Full Power with PDC Series power supplies.

Standard Nominal Lengths offered provide minimal shadowing. For alternate lengths, please consult Inside Sales with specific request.

#### High Efficacy (HE64)

Nominal	Back Feed Actual	Watts									
Length (in)	Length	VHO									
12	11 8/16	7.6	47	46 5/16	28.2	82	81 2/16	50.4	117	-	-
13	13	7.6	48	47 13/16	29.5	83	82 10/16	51.7	118	117 8/16	72.8
14	-	-	49	-	-	84	-	-	119	119	73.3
15	14 8/16	8.9	50	49 5/16	30.1	85	84 3/16	52.3	120	-	-
16	-	-	51	50 14/16	31.4	86	85 11/16	53.6	121	120 8/16	74.4
17	16	9.5	52	-	-	87	-	-	122	-	-
18	17 9/16	10.7	53	52 6/16	32.0	88	87 3/16	54.2	123	122	74.8
19	-	-	54	53 14/16	33.3	89	88 11/16	55.5	124	123 8/16	75.6
20	19 1/16	11.4	55	-	-	90	-	-	125	-	-
21	20 9/16	12.6	56	55 6/16	34.0	91	90 3/16	56.2	126	125 1/16	76.0
22	-	-	57	56 14/16	35.2	92	91 12/16	57.5	127	126 9/16	76.8
23	22 1/16	13.2	58	-	-	93	-	-	128	-	-
24	23 9/16	14.5	59	58 7/16	36.5	94	93 4/16	58.2	129	128 1/16	77.2
25	-	-	60	59 15/16	37.2	95	94 12/16	59.5	130	129 9/16	78.0
26	25 2/16	15.1	61	-	-	96	-	-	131	-	-
27	26 10/16	16.4	62	61 7/16	38.4	97	96 4/16	60.1	132	131 2/16	78.4
28	-	-	63	62 15/16	39.1	98	97 13/16	61.4	133	132 10/16	79.2
29	28 2/16	17.0	64	-	-	99	-	-	134	-	-
30	29 10/16	18.2	65	64 8/16	40.4	100	99 5/16	62.0	135	134 2/16	79.6
31	-	-	66	66	41.0	101	100 13/16	63.2	136	135 10/16	80.3
32	31 3/16	18.9	67	-	-	102	-	-	137	-	-
33	32 11/16	20.1	68	67 8/16	42.3	103	102 5/16	63.8	138	137 2/16	80.6
34	-	-	69	-	_	104	103 13/16	65.0	139	138 11/16	81.3
35	34 3/16	20.7	70	69	42.9	105	-	-	140	-	-
36	35 11/16	22.0	71	70 8/16	44.2	106	105 6/16	65.6	141	140 3/16	81.7
37	-	-	72	-	_	107	106 14/16	66.8	142	141 11/16	82.4
38	37 3/16	22.6	73	72 1/16	44.9	108	-	-	143	_	
39	38 12/16	23.9	74	73 9/16	46.1	109	108 6/16	67.4	144	143 3/16	82.7
40	_	-	75	_	_	110	109 14/16	68.5			
41	40 4/16	24.5	76	75 1/16	46.7	111	-	-	_		
42	41 12/16	25.7	77	76 9/16	48.0	112	111 <i>7/</i> 16	69.6			
43	-	-	78	-	_	113	112 15/16	70.1	_		
44	43 4/16	26.4	79	78 2/16	48.6	114	-	_	_		
45	44 13/16	27.6	80	79 10/16	49.8	115	114 7/16	71.2	_		
46	-	-	81	-	-	116	115 15/16	71.7	-		



# Linear Illumination System



### **Voltage Drop Calculator**

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

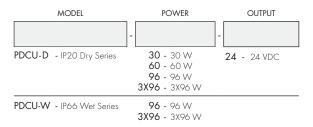
Wattage		Maxi	mum Wire Lengt	h From Power Su	pply to Start of R	tun [ft]	
[W]	12 AWG	14 AWG	16 AWG	18 AWG	20 AWG	22 AWG	24 AWG
5	1088.2	684.4	430.3	270.6	170.2	107.1	67.3
10	544.1	342.2	215.1	135.3	85.1	53.5	33.7
15	362.7	228.1	143.4	90.2	56.7	35.7	22.4
20	272.0	171.1	107.6	67.7	42.6	26.8	16.8
25	217.6	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



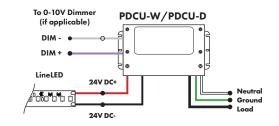
### **Power Supplies**

See Power Supply instructions and spec sheet for wiring information. For a complete list of compatible dimmers, see Compatible Dimming Chart on the Resources page.

#### Universal Power Supply 1% 120VAC - 277VAC



0-10V dims down to 1%, MLV/ELV/TRIAC dims down to 1%. For a complete list of compatible dimmers, see  $\underline{\text{Compatible Dimming Chart}}$  on the Resources page.

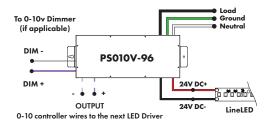


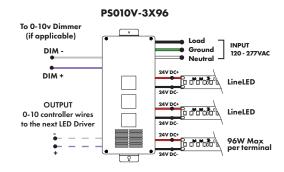
MODELS	PDCU-W 96W	PDCU-W 3X96W	PDCU-D 30W	PDCU-D 60W	PDCU-D 96W	PDCU-D 3X96W
Length	8.66"	11.85"	6.10"	7.93"	8.25"	9.57"
Width	3.73"	4.32"	3.35"	3.35"	4.10"	5.94"
Depth	1.61"	1.81"	1.33	1.32"	1.56"	1.13"

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

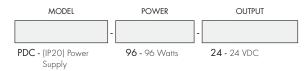


MODELS	96W	3X96
Length	14.40"	15.75"
Width	5.20"	6.62"
Depth	2.60"	4.95"

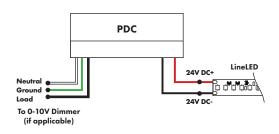




#### Triac, MLV, & ELV Compatible Dimmers



MODELS	96W
Length	8.25"
Width	4.10"
Depth	1.56"

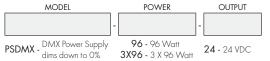




### **Power Supplies**

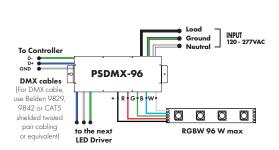
See Power Supply instructions and spec sheet for wiring information. For a complete list of compatible dimmers, see Compatible Dimming Chart on the Resources page.

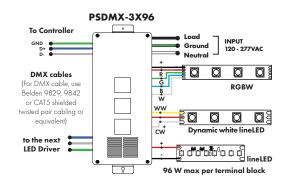
#### DMX Dimming Power Supplies 120VAC - 277VAC



Features eldoLED's LINEARdrive configurable dimmable drivers

MODELS	96W	3X96
Length	14.40"	15.75"
Width	5.20"	6.62"
Depth	2.60"	4.95"
Depth	2.60"	



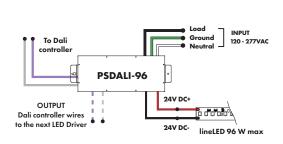


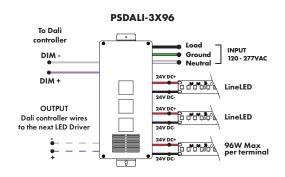
#### DALI 0% Dimming Power Supplies 120VAC - 277VAC



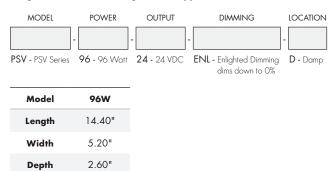
Features eldoLED's LINEARdrive configurable dimmable drivers

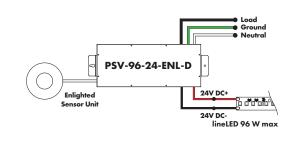
15.75"
6.62"
4.95"





#### Enlighted Enabled Dimming Power Supplies 120VAC - 277VAC



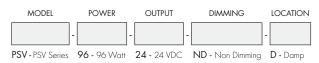




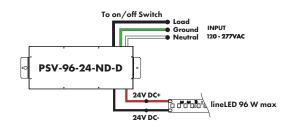
### **Power Supplies**

See Power Supply instructions and spec sheet for wiring information. For a complete list of compatible dimmers, see Compatible Dimming Chart on the Resources page.

#### Non-Dimming Power Supply 120VAC - 277VAC



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



# **<b>\$\$LUTRON**

Luminii is a Lutron OEM Advantage Partner

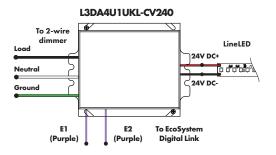
#### **Lutron Power Supplies 1%**

MODEL

### L3DA4U1UKL-CV240

 $Hi-lume^{TM}$  1% EcoSystem Voltage LED driver 40W max

MODELS	L3DA4U1UKL-CV240
Length	4.98"
Width	4.00"
Depth	2.62"



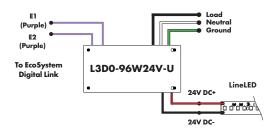
# **\$LUTRON**

#### **Lutron Power Supplies 0.1%**

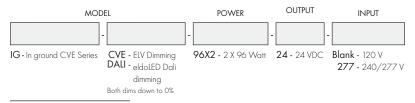
MODEL

L3D0-96W24V-U	
Hi-lume™ 0.1% EcoSystem Voltage LED Driver with Sof	t-On, Fade-to-Black™

MODELS	L3D0
Length	10.50"
Width	5.50"
Depth	2.00"



#### **In-Ground Power Supplies**



MODELS	Dual Circuit
Length	8.40"
Width	8.30"
Depth	8.10"

