



24V slim linear LED downlight with optimal glare control available as recessed with a remarkable low installation depth of 1.3" or surface-mounted & pendant version in a robust 1.65" x 2.44" housing. Extruded and anodized aluminum casing and magnetic aluminum end caps (for surface and pendant) available in silver, black or white colors. NanoRay technology enabling accurate 15°, 25°, 40° or 65° beam angles. Antiglare optics available in black or white offering UGR <13 for optimal visual comfort. Light source assembled using Reel to Reel (R2R) production process supporting LED Linear™ Tj Away® thin flexible circuit board technology. Outstanding lifetime of >60,000 hrs L80/B10. Embeds high quality CSP LEDs with 3 step MacAdams (SDCM3) binning centered on target CCT (One Bin Only) with an extended photometric code of Wxxx/339 ensuring exceptional color consistency over the rated lifetime. Premium color rendition with CRI of 95 and TM-30-15 up to R<sub>i</sub> = 95 / R<sub>g</sub> = 101 ensuring remarkable light quality. Consistent light intensity all along the luminaire length. Fully dimmable. Engineered and produced in Germany.

Project name \_\_\_\_\_

Fixture type \_\_\_\_\_ Phase \_\_\_\_\_

Specifier \_\_\_\_\_ Date \_\_\_\_\_

**24** Select Models Only

**ETL** Intertek ETL Listed

**Nano Ray** Precision Optics

**Integrated Circuit Driver** Up to 1000 lm/ft 94 lm/W Constant Light Output

**Reel-to-Reel R2R Production** High Quality Solder Free Reels

**TjAway Thermal Management** Exceptional Thermal Dissipation

**One Bin Only** 3 MacAdam up to 95 CRI

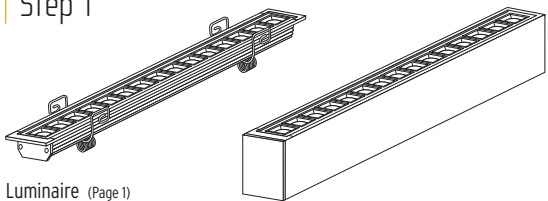
**L/B Lifetime** L80/B10 >60,000 hrs

**6 Digit Photometric Code** Wxxx/339

**IES LM79/LM80** LM79/LM80 Compliant

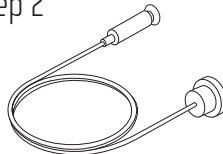
## Ordering Process

### Step 1



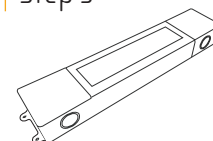
Luminaire (Page 1)

### Step 2



Mounting and Accessories (Page 3)

### Step 3



Drivers and Controllers (Page 6)

## Luminaire Order Code

Family	Model	Lumen package <sup>A</sup>	Color rendering	CCT	Custom length <sup>C,D</sup>	Body Color/Louver Color	Mounting	Optic	Ingress
MARS NANO	_____	_____	W_	__	_____	_____	__	__	IP40
	CV - Static White	LD05-120 lm/ft LD10-260 lm/ft LD15-400 lm/ft LD25-630 lm/ft LD40-930 lm/ft	W8-85CRI <sup>B</sup> W9-95CRI	22-2200K 27-2700K 30-3000K 35-3500K 40-4000K 50-5000K	L <sub>min</sub> : 145 mm (5-1/2") L <sub>max</sub> : 4020 mm (13' 2") LD25 L <sub>max</sub> : 3020 mm (9' 10") LD40 L <sub>max</sub> : 2020 mm (6' 7") Increment: 125 mm (4-15/16")	BB-Black/Black SB-Silver/Black WW-White/White WB-White/Black	P-Pendant C-Surface R-Recessed	15-15° Optic 25-25° Optic 40-40° Optic <sup>E</sup> 65-65° Optic <sup>E</sup>	
	CV IQW - Tunable White	LD40-690 lm/ft	-	-	L <sub>min</sub> : 270 mm (10-3/8") L <sub>max</sub> : 3020 mm (9' 10") Increment: 250 mm (9-7/8")				

<sup>A</sup> Lumen Values represent 3000K (W930) and with 40° optic with white louver color.

<sup>B</sup> Only available with 2200K and 5000K (W822 and W850).

<sup>C</sup> Custom Length should be specified in millimeters (mm). See page 4 and 5 for all available lengths.

<sup>D</sup> Values are for pendant/surface fixtures. Please see mechanical details on page 2 for recessed fixtures.

<sup>E</sup> Not available with recessed models that uses LD40 lumen package

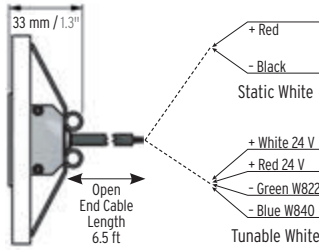
		LD5				LD15				LD25				LD40	
		Color temperature	Lumen/ft <sup>A</sup>	W/ft <sup>B</sup>		Lumen/ft <sup>A</sup>	W/ft <sup>B</sup>			Lumen/ft <sup>A</sup>	W/ft <sup>B</sup>			Lumen/ft <sup>A</sup>	W/ft <sup>B</sup>
Static White	●	W822	2,200 K	120	1.5	250	3.0	380	4.6	610	7.6	910	12.2		
	●	W927	2,700 K	120	1.5	250	3.0	390	4.6	630	7.6	920	12.2		
	●	W930	3,000 K	120	1.5	260	3.0	400	4.6	630	7.6	930	12.2		
	●	W935	3,500 K	130	1.5	260	3.0	400	4.6	640	7.6	950	12.2		
	●	W940	4,000 K	130	1.5	260	3.0	410	4.6	650	7.6	960	12.2		
Tunable White	●	W850	5,000 K	130	1.5	270	3.0	420	4.6	680	7.6	1,000	12.2		
	●	W822	2,200 K	-	-	-	-	-	-	-	-	510	12.2		
	●	W850	5,000 K	-	-	-	-	-	-	-	-	690	12.2		
	●	Total	2,200 K - 5,000 K	-	-	-	-	-	-	-	-	-	12.2		

<sup>A</sup> Measured with 40° optic with white louver finish. Other optic options reduces light output by 5%.

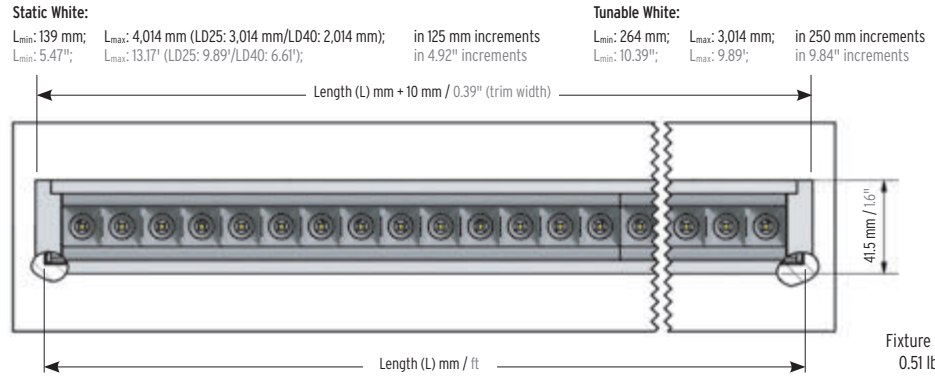
<sup>B</sup> The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

## Mechanical Details

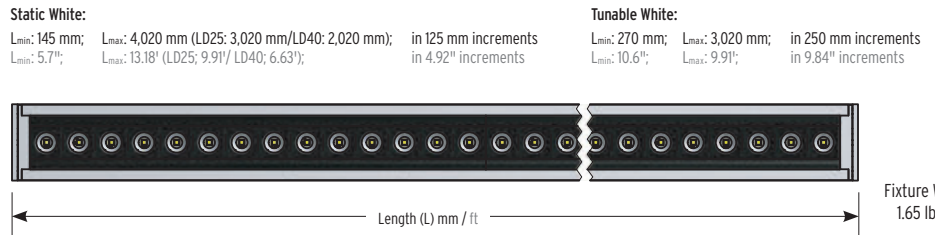
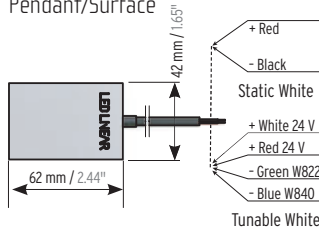
### Recessed\*



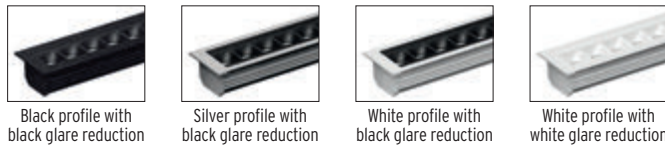
\* Need 3" clearance above the ceiling



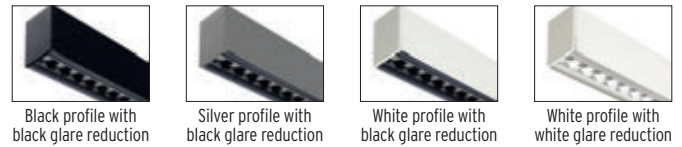
### Pendant/Surface



### Recessed Colors



### Pendant/Surface Colors



## Technical Details

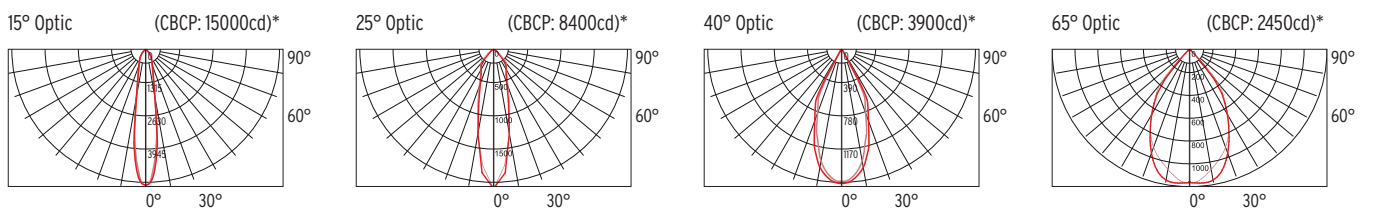
	Static White	Tunable White
Voltage	24 Volt (23 V <sub>min</sub> , 25 V <sub>max</sub> )	24 Volt (23 V <sub>min</sub> , 25 V <sub>max</sub> )
Case temperature <sup>A</sup>	T <sub>Cmin</sub> = -13°F / -25°C, T <sub>Cmax</sub> = specific, see Table below	T <sub>Cmin</sub> = -13°F / -25°C, T <sub>Cmax</sub> = 167°F / 75°C
Storage temperature	T <sub>Smin</sub> = -22°F / -30°C, T <sub>Smax</sub> = 185°F / 85°C	T <sub>Smin</sub> = -22°F / -30°C, T <sub>Smax</sub> = 176°F / 80°C
Ambient temperature	T <sub>Amin</sub> = -13°F / -25°C, T <sub>Amax</sub> = specific, see Table below	T <sub>Amin</sub> = -13°F / -25°C, T <sub>Amax</sub> = 104°F / 40°C

<sup>A</sup> The position of the T<sub>C</sub>-point is marked on each step of the LED strip. The T<sub>C</sub>-point should be measured in thermal equilibrium according to IEC EN 60598-1.

	Static White					Tunable White
	LD5	LD10	LD15	LD25	LD40	LD40
Power (W/ft) <sup>B</sup>	1.5	3.0	4.6	7.6	12.2	12.2
Efficacy (lm / W) <sup>B</sup> @ W850	90	94	93	89	82	60
Max serial run length (ft / m)	24.6 / 7.5	16.4 / 5	16.4 / 5	9.8 / 3	6.6 / 2	6.6 / 2
CRI / R9 @ 3000 K	95 / 86	95 / 86	95 / 86	95 / 86	95 / 86	up to 85 / up to 65
Max Temperature T <sub>Cmax</sub> <sup>B</sup>	140°F / 60°C	140°F / 60°C	140°F / 60°C	149°F / 65°C	167°F / 75°C	167°F / 75°C
Max ambient temperature (T <sub>Amax</sub> ) <sup>B</sup>	122°F / 50°C	122°F / 50°C	122°F / 50°C	113°F / 45°C	95°F / 35°C	104°F / 40°C

<sup>B</sup> The given data are typical values. Due to tolerances of the production process and the electrical components, values for light output and electrical power can vary up to 10%.

## Light Distribution

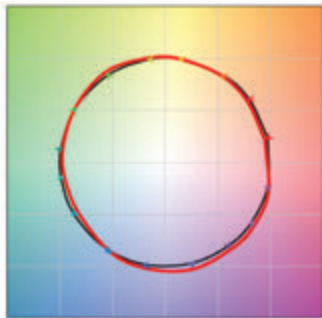


\* Values represent LD40 at 3000K with 1m fixture

## Colorimetric Details

Photometric Code	CCT	CRI	R9	R <sub>f</sub>	R <sub>g</sub>
W930/339	3000 K	95	86	92	101

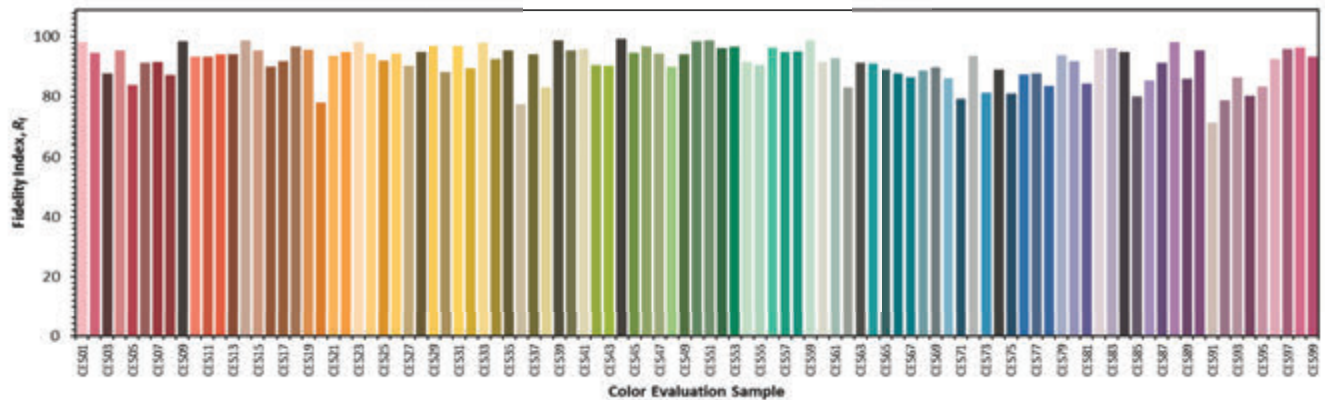
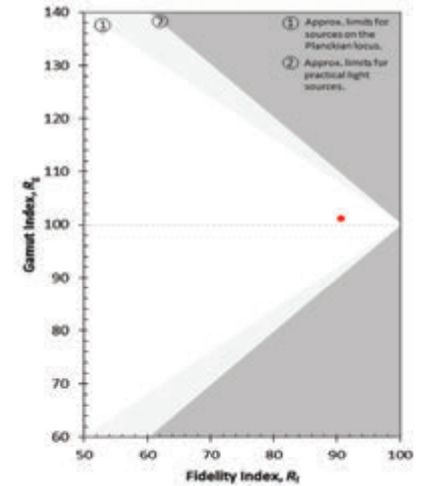
Color Vector Graphic





Color Distortion Graphic



Reference Illuminant  
Test Source



## Mounting Accessories

Item	Description	Models	Order Code
	Mars Nano Pendant Mounting Kit Pendant mounting kit including 6.5 feet (2m) long, field cuttable aircraft cable and ceiling installation bracket. Recommended to use every 3 feet.	Silver Finish	13000106
	Pendant Canopy Kit 4 Pendant canopy kit including 5" round metal canopy, J-box mounting cross bar, silver cable grippers and mounting screws. Covers standard junction boxes and recommended to use for every live electrical feed.	White Canopy Finish Silver Hardware	Canopy Kit 4

LENGTH CHART - Mars Nano (Recessed) *Dimensions include end cap flange.*

Fixture length		Static White										Tunable White LD40	
		LD5 1.5 Watts/Ft		LD10 3.0 Watts/Ft		LD15 4.6 Watts/Ft		LD25 7.6 Watts/Ft		LD40 12.2 Watts/Ft		12.2 Watts/Ft	
inches	mm	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K
5.9	149	1	55	1	114	2	182	3	292	6	433	-	-
10.8	274	1	104	3	216	4	346	7	554	11	823	11	823
15.7	399	2	153	4	319	6	510	10	817	16	1212	-	-
20.6	524	3	202	5	421	8	674	13	1079	21	1602	21	1602
25.6	649	3	252	6	524	10	838	16	1341	26	1991	-	-
30.5	774	4	301	8	626	12	1002	19	1604	31	2381	31	2381
35.4	899	4	350	9	729	13	1166	22	1866	36	2770	-	-
40.3	1024	5	399	10	831	15	1330	25	2129	41	3160	41	3160
45.2	1149	6	448	11	934	17	1494	28	2391	46	3549	-	-
50.2	1274	6	498	12	1036	19	1658	32	2653	51	3939	51	3939
55.1	1399	7	547	14	1139	21	1822	35	2916	56	4328	-	-
60.0	1524	7	596	15	1241	23	1986	38	3178	61	4718	61	4718
64.9	1649	8	645	16	1344	25	2150	41	3441	66	5107	-	-
69.8	1774	9	694	17	1446	27	2314	44	3703	71	5497	71	5497
74.8	1899	9	744	19	1549	29	2478	47	3965	76	5886	-	-
79.7	2024	10	793	20	1651	30	2642	50	4228	81	6276	81	6276
84.6	2149	11	842	21	1754	32	2806	53	4490	-	-	-	-
89.5	2274	11	891	22	1856	34	2970	56	4753	-	-	-	-
94.5	2399	12	940	24	1959	36	3134	60	5015	-	-	-	-

Oversize length		Static White										Tunable White LD40	
		LD5 1.5 Watts/Ft		LD10 3.0 Watts/Ft		LD15 4.6 Watts/Ft		LD25 7.6 Watts/Ft		LD25 12.2 Watts/Ft		12.2 Watts/Ft	
inches	mm	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K
99.4	2524	12	990	25	2061	38	3298	63	5277	-	-	-	-
104.3	2649	13	1039	26	2164	40	3462	66	5540	-	-	-	-
109.2	2774	14	1088	27	2266	42	3626	69	5802	-	-	-	-
114.1	2899	14	1137	28	2369	44	3790	72	6065	-	-	-	-
119.1	3024	15	1186	30	2471	45	3954	75	6327	-	-	-	-
124.0	3149	15	1236	31	2574	47	4118	-	-	-	-	-	-
128.9	3274	16	1285	32	2676	49	4282	-	-	-	-	-	-
133.8	3399	17	1334	33	2779	51	4446	-	-	-	-	-	-
138.7	3524	17	1383	35	2881	53	4610	-	-	-	-	-	-
143.7	3649	18	1432	36	2984	55	4774	-	-	-	-	-	-
148.6	3774	19	1482	37	3086	57	4938	-	-	-	-	-	-
153.5	3899	19	1531	38	3189	59	5102	-	-	-	-	-	-

LENGTH CHART - Mars Nano (Pendant/Surface)


Fixture length		Static White										Tunable White	
		LD5 1.5 Watts/Ft		LD10 3.0 Watts/Ft		LD15 4.6 Watts/Ft		LD25 7.6 Watts/Ft		LD40 12.2 Watts/Ft		LD40 12.2 Watts/Ft	
inches	mm	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K
10.6	270	1	106	3	221	4	354	7	567	11	841	11	841
15.6	395	2	155	4	324	6	518	10	829	16	1231	16	1231
20.5	520	3	205	5	426	8	682	13	1092	21	1620	21	1620
25.4	645	3	254	6	529	10	846	16	1354	26	2010	26	2010
30.3	770	4	303	8	631	12	1010	19	1616	31	2399	31	2399
35.2	895	4	352	9	734	14	1174	22	1879	36	2789	36	2789
40.2	1020	5	401	10	836	15	1338	25	2141	41	3178	41	3178
45.1	1145	6	451	11	939	17	1502	29	2404	46	3568	46	3568
50.0	1270	6	500	12	1041	19	1666	32	2666	51	3957	51	3957
54.9	1395	7	549	14	1144	21	1830	35	2928	56	4347	56	4347
59.8	1520	7	598	15	1246	23	1994	38	3191	61	4736	61	4736
64.8	1645	8	647	16	1349	25	2158	41	3453	66	5126	66	5126
69.7	1770	9	697	17	1451	27	2322	44	3716	71	5515	71	5515
74.6	1895	9	746	19	1554	29	2486	47	3978	76	5905	76	5905
79.5	2020	10	795	20	1656	30	2650	50	4240	81	6294	81	6294
84.5	2145	11	844	21	1759	32	2814	53	4503	-	-	-	-
89.4	2270	11	893	22	1861	34	2978	57	4765	-	-	-	-
94.3	2395	12	943	24	1964	36	3142	60	5028	-	-	-	-

Oversize length		Static White										Tunable White	
		LD5 1.5 Watts/Ft		LD10 3.0 Watts/Ft		LD15 4.6 Watts/Ft		LD25 7.6 Watts/Ft		LD25 12.2 Watts/Ft		LD15 12.2 Watts/Ft	
inches	mm	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K	Watts/fixture	Lumens/fixture @3000K
99.2	2520	12	992	25	2066	38	3306	63	5290	-	-	-	-
104.1	2645	13	1041	26	2169	40	3470	66	5552	-	-	-	-
109.1	2770	14	1090	27	2271	42	3634	69	5815	-	-	-	-
114.0	2895	14	1139	28	2374	44	3798	72	6077	-	-	-	-
118.9	3020	15	1189	30	2476	46	3962	75	6340	-	-	-	-
123.8	3145	15	1238	31	2579	47	4126	-	-	-	-	-	-
128.7	3270	16	1287	32	2681	49	4290	-	-	-	-	-	-
133.7	3395	17	1336	33	2784	51	4454	-	-	-	-	-	-
138.6	3520	17	1385	35	2886	53	4618	-	-	-	-	-	-
143.5	3645	18	1435	36	2989	55	4782	-	-	-	-	-	-
148.4	3770	19	1484	37	3091	57	4946	-	-	-	-	-	-
153.4	3895	19	1533	38	3194	59	5110	-	-	-	-	-	-

## Drivers

Item	Specifications	Downloads
<b>LED LINEAR™</b> Non-Dimmable Drivers 	<ul style="list-style-type: none"> <li>• UL 8750 Listed Enclosure - With Built-In Junction Boxes</li> <li>• Universal Input Voltage 120V - 277V</li> <li>• IP65 - For Both Indoor and Outdoor Use</li> <li>• No Minimum Load Requirement</li> <li>• 24V Constant Voltage Output, Class 2</li> <li>• Available in three wattages 30W, 60W and 96W</li> <li>• Max. Dimensions: 12-1/8" x 2-3/8" x 1-3/8"</li> </ul>	<a href="#">30 W SPEC SHEET</a> <a href="#">60 W SPEC SHEET</a> <a href="#">96 W SPEC SHEET</a> <a href="#">INSTALLATION INSTRUCTIONS</a>
<b>LED LINEAR™</b> 0-10V Dimmable Drivers 	<ul style="list-style-type: none"> <li>• UL 8750 Listed Enclosure - With Built-In Junction Boxes</li> <li>• 0-10V Dimmable - Flicker Free Down to 1%</li> <li>• Universal Input Voltage 120V - 277V</li> <li>• IP65 - For Both Indoor and Outdoor Use</li> <li>• 24V Constant Voltage Output, Class 2, Class P</li> <li>• Available in three wattages 30W, 60W and 96W</li> <li>• Max. Dimensions: 12-1/8" x 2-3/8" x 1-3/8"</li> </ul>	<a href="#">30 W SPEC SHEET</a> <a href="#">60 W SPEC SHEET</a> <a href="#">96 W SPEC SHEET</a> <a href="#">INSTALLATION INSTRUCTIONS</a>
<b>LED LINEAR™</b> ELV/Triac Dimmable Drivers 	<ul style="list-style-type: none"> <li>• UL 8750 Listed Class 2 Enclosure</li> <li>• 24V constant voltage output</li> <li>• Compact size yet high efficiency and performance in dry and damp environments (IP67)</li> <li>• Multiple Inputs: 120V or 277V</li> <li>• Fully dimmable: ELV Dimmers - Reverse or Adaptive Phase Control, Trailing Edge</li> <li>• Available in two wattages 48W and 96W</li> <li>• Multiple Circuits are available up to 4 units (up to 384W)</li> </ul>	<a href="#">48 W SPEC SHEET</a> <a href="#">96 W SPEC SHEET</a> <a href="#">INSTALLATION INSTRUCTIONS</a>
 PWM Dimmable Drivers 	<ul style="list-style-type: none"> <li>• Universal AC input / Full range (up to 305VAC)</li> <li>• Constant voltage PWM style output</li> <li>• Built-in 3 in 1 dimming function (0-10Vdc or PWM signal or resistance)</li> <li>• Dimming range : 0-100%</li> <li>• Class 2 power unit</li> <li>• Suitable for dry / damp / wet locations</li> <li>• UL Recognized component, 5 years warranty</li> </ul>	<a href="#">40 W SPEC SHEET</a> <a href="#">60 W SPEC SHEET</a> <a href="#">90 W SPEC SHEET</a> <a href="#">INSTALLATION INSTRUCTIONS</a>
<b>OLUTRON</b> Dimmable Drivers 	<ul style="list-style-type: none"> <li>• UL Listed Enclosure</li> <li>• Dimming Range: 100% to 1% and 0.1% (Premiere)</li> <li>• LED lighting turns on to any dimmed level without flashing to full brightness</li> <li>• Operating Voltage: 120V~ to 277V~ at 50/60 Hz</li> <li>• Rated lifetime of 50,000 hours at 40°C (104°F) ambient temperature and maximum loading</li> <li>• For rated warranty, ambient temperature not to exceed 40°C (104°F)</li> <li>• Open-circuit protected output</li> </ul>	<a href="#">HI-LUME SPEC SHEET</a> <a href="#">HI-LUME PREMIERE SPEC SHEET</a> <a href="#">INSTALLATION INSTRUCTIONS</a>
<b>eldoLED</b> DALI/DMX Dimmable Drivers 	<ul style="list-style-type: none"> <li>• Available in linear or rectangular format</li> <li>• 100W, DMX/DALI interface for Static White, Tunable White and RGB/W Applications</li> <li>• 4 control channels</li> <li>• 24V constant voltage, 4 x 24V outputs</li> <li>• Metal or plastic case options</li> </ul>	<a href="#">100 W SPEC SHEET</a> <a href="#">INSTALLATION INSTRUCTIONS</a>

## Controllers

Item	Specifications	Downloads
<b>eldoLED</b> Controllers 	<b>180/D</b> DMX Controller for RGB/W and Tunable White Applications	<a href="#">180/D SPEC SHEET</a>
	<b>210/D</b> Dali Controller for Static White Applications	<a href="#">210/D SPEC SHEET</a>
	<b>211/D-LG</b> 0-10V Logarithmic Dimming Controller	<a href="#">211/D-LG SPEC SHEET</a>
	<b>211/D-LN</b> 0-10V Linear Dimming Controller	<a href="#">211/D-LN SPEC SHEET</a>
	<b>212/D</b> DMX Controller for Static White and Static Color Applications	<a href="#">212/D SPEC SHEET</a>
	<b>DimWheel</b> DMX Wall Controller for RGB/W and Tunable White Applications	<a href="#">DIM WHEEL SPEC SHEET</a>

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INSTALLATION

IES FILES

DRIVERS & CONTROLS

LED LINEAR TECHNOLOGY

VOLTAGE DROP CALCULATOR

CANOPY INSTALLATION