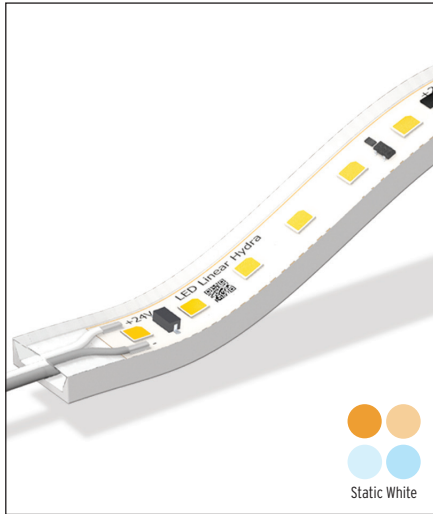


HYDRA HD IP67 Static White



24 V flexible outdoor rated linear LED tape delivered in custom lengths up to 16 ft (5m). Polyurethane encapsulation offers a premium water proof sealing, UV resistance, chemical stability against urban gases and protection against abrasion. White lower casing for better light extraction thus higher efficacy. Delivered complete with IP67 mini connectors on both ends. Reel-to-Reel (R2R) produced flexible circuit board material with LED Linear™ Tj Away® Technology for optimal heat management. Constant light output and extended lifetime thanks to an integrated circuit (IC) driver regulation. One Bin Only® top quality LED's with 120° beam angle and excellent color rendering up to CRI 95. 3 step MacAdam ellipse guarantees consistent color temperature and light quality at a life-time of >60,000 hrs L80/B10. Extended 6 digit photometric code ensures color consistency over the rated lifetime. Fully dimmable. Engineered and manufactured in Germany.



Static White

HD - High LED Density

Project name _____

Fixture type _____ Phase _____

Specifier _____ Date _____

24 TITLE Select Models Only

ETL Intertek ETL Listed

Integrated Circuit Driver Up to 514 lm/ft 142 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

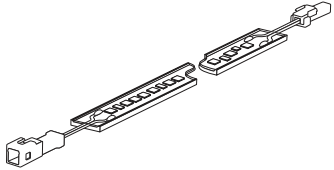
L/B Lifetime L80/B10 >60,000 hrs

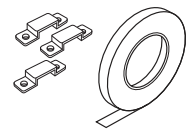
6 Digit Photometric Code Wxxx/339

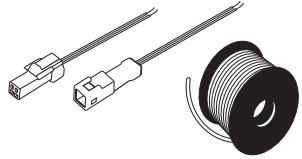
IES LM79/LM80 LM79/LM80 Compliant

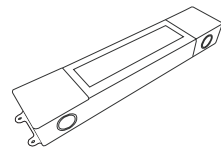
Ordering Process

Step 1 | **Step 2** | **Step 3** | **Step 4**

 LED Tape Custom Length (Page 1)

 Mounting Accessories (Page 4)

 Cables and Connectors (Page 4)

 Drivers and Controllers (Page 5)

LED Tape Order Code

Family	Model	Lumen package*	Color rendering	Color temperature	Custom Length***	Ingress
VarioLED Flex	_____	HD__	W_	__	_____	IP67
	HYDRA - Static White	HD6-151 lm/ft	W8-85CRI	20-2500K	L _{min} : 82 mm (3-1/4")	
		HD10-252 lm/ft	W9-95CRI**	22-2900K		
		HD15-514 lm/ft		25-3300K	HD06 L _{max} : 5019 mm (16' 5-5/8")	
				27-3800K (3600K for W9)	HD10 L _{max} : 5019 mm (16' 5-5/8")	
				30-4300K (4300K for W9)	HD15 L _{max} : 4019 mm (13' 2-1/4")	
				35-5100K (4900K for W9)		
					Increment: 62.5 mm (2-1/2")	

* Lumen Values represent 5100K (W835).

** Not available for HD15.

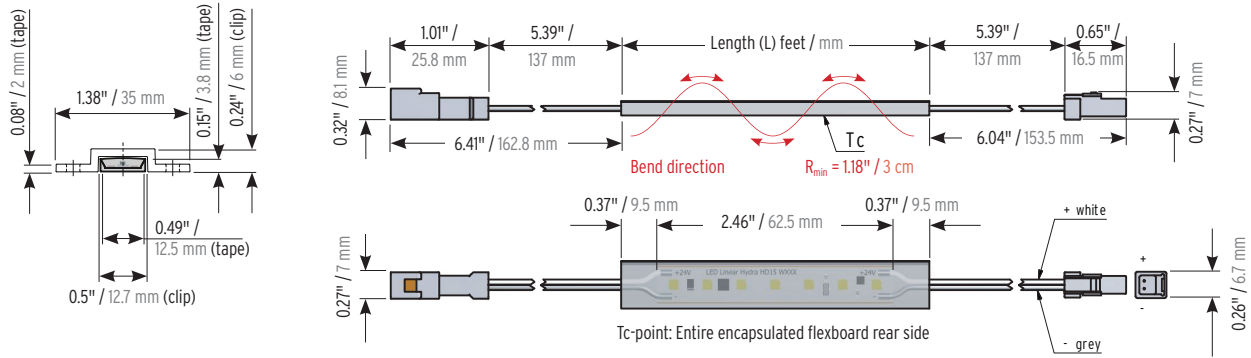
*** Custom Length should be specified in millimeters (mm). See page 3 for all available lengths.

	Color temperature ^a	CCT (Delivered)	HD6		HD10		HD15	
			Lumen/ft	W/ft ^b	Lumen/ft	W/ft ^b	Lumen/ft	W/ft ^b
Static White	● W820	2,500 K	124	1.5	206	3.1	331	4.6
	● W822	2,900 K	142	1.5	237	3.1	380	4.6
	● W825	3,300 K	161	1.5	270	3.1	435	4.6
	● W827/W927	3,800 K / 3,600 K	145	1.5	243	3.1	459	4.6
	● W830/W930	4,300 K / 4,300 K	148	1.5	246	3.1	487	4.6
	● W835/W935	5,100 K / 4,900 K	151	1.5	252	3.1	514	4.6

^a CCT tolerances occur in IP67 products due to the encapsulation of the fixture.

^b 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



Technical Details

	Static White
Step length	7 LEDs per 2.46" / 62.5 mm
Voltage	24 Volt (23 V _{min} , 25 V _{max})
Case temperature ^A	T _{Cmin} = -13°F / -25°C, T _{Cmax} = 158°F / 70°C
Storage temperature	T _{Smin} = -22°F / -30°C, T _{Smax} = 185°F / 85°C
Ambient temperature	T _{Amin} = -13°F / -25°C, T _{Amax} = 104°F / 40°C

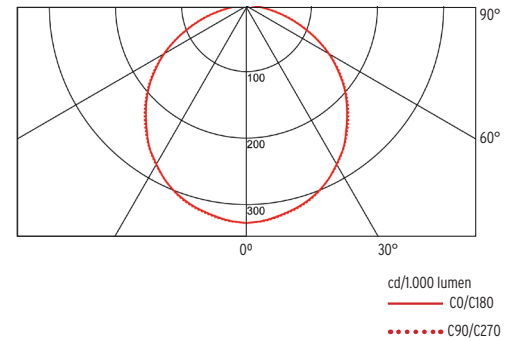
^A The position of the Tc-point is marked on each step of the LED strip. The Tc-point should be measured in thermal equilibrium according to IEC EN 60598-1.

	Static White HD6	Static White HD10	Static White HD15
Power (W/ft) ^B	1.8	3.1	4.6
Efficacy (lm / W) ^B @ W835	100	82	112
CRI / R9 @ 3000 K	95 / 65	95 / 65	85 / 25
Max serial run length (ft / m)	16.4 / 5	16.4 / 5	13.1 / 4

^B 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



HYDRA HD IP67 - Static White








LENGTH CHART - Hydra HD IP67

Fixture length		HD6 1.8 Watts/Ft		HD10 3.0 Watts/Ft		HD15 4.6 Watts/Ft	
inches	mm	Watts/fixture	Lumens/fixture @W930K	Watts/fixture	Lumens/fixture @W930K	Watts/fixture	Lumens/fixture @W830K
3.2	82	1	40	1	2	1	5
5.7	145	1	70	1	4	2	9
8.2	207	1	100	2	6	3	13
10.6	270	2	131	3	8	4	17
13.1	332	2	161	3	10	5	21
15.5	395	2	192	4	12	6	25
18.0	457	3	222	4	14	7	29
20.5	520	3	252	5	15	8	33
22.9	582	3	283	6	17	9	37
25.4	645	4	313	6	19	10	41
27.8	707	4	343	7	21	11	44
30.3	770	5	374	8	23	12	48
32.8	832	5	404	8	25	13	52
35.2	895	5	434	9	27	13	56
37.7	957	6	465	9	29	14	60
40.1	1020	6	495	10	30	15	64
42.6	1082	6	525	11	32	16	68
45.1	1145	7	556	11	34	17	72
47.5	1207	7	586	12	36	18	76
50.0	1270	7	616	12	38	19	80
52.4	1332	8	647	13	40	20	84
54.9	1395	8	677	14	42	21	88
57.4	1457	9	707	14	43	22	92
59.8	1520	9	738	15	45	23	96
62.3	1582	9	768	16	47	24	99
64.7	1645	10	798	16	49	25	103
67.2	1707	10	829	17	51	26	107
69.7	1770	10	859	17	53	27	111
72.1	1832	11	889	18	55	28	115
74.6	1895	11	920	19	57	29	119
77.1	1957	12	950	19	58	30	123
79.5	2020	12	980	20	60	30	127
82.0	2082	12	1011	20	62	31	131
84.4	2145	13	1041	21	64	32	135
86.9	2207	13	1071	22	66	33	139
89.4	2270	13	1102	22	68	34	143
91.8	2332	14	1132	23	70	35	147
94.3	2395	14	1162	24	71	36	151
96.7	2457	15	1193	24	73	37	155
99.2	2520	15	1223	25	75	38	158
101.7	2582	15	1253	25	77	39	162
104.1	2645	16	1284	26	79	40	166
106.6	2707	16	1314	27	81	41	170
109.0	2770	16	1344	27	83	42	174
111.5	2832	17	1375	28	84	43	178
114.0	2895	17	1405	28	86	44	182
116.4	2957	17	1435	29	88	45	186
118.9	3020	18	1466	30	90	46	190
121.3	3082	18	1496	30	92	47	194
123.8	3145	19	1526	31	94	47	198
126.3	3207	19	1557	32	96	48	202
128.7	3270	19	1587	32	98	49	206
131.2	3332	20	1617	33	99	50	210
133.6	3395	20	1648	33	101	51	213
136.1	3457	20	1678	34	103	52	217
138.6	3520	21	1709	35	105	53	221
141.0	3582	21	1739	35	107	54	225
143.5	3645	22	1769	36	109	55	229
145.9	3707	22	1800	36	111	56	233
148.4	3770	22	1830	37	112	57	237
150.9	3832	23	1860	38	114	58	241
153.3	3895	23	1891	38	116	59	245
155.8	3957	23	1921	39	118	60	249

Mounting Accessories

Item	Description	Dimensions (L x W x H)	Order Code
	Surface Mount Clip Clear plastic mounting clips. Use to mount the product on hard surfaces. Sold as set of 50 pieces.	3/8" x 1-3/8" x 1/4"	13000115
	Adhesive Tape Double sided 3M adhesive tape roll. Use to mount products on surfaces.	32' x 3/8"	182000035







Cables and Connectors

Item	Description	Model	Dimensions	Order Code
	Cable IP68 for Static White Outdoor rated UL approved cable. Use to extend installation distance with outdoor rated splicing box (by others).	Static White	2 x 22 AWG, 160 ft	14000030
	Mini Female Connector IP67 for Static White Use to run cable from the driver to the first fixture of the run or to the next fixture. Female mini connector on one side and open end cable on the other side.	Static White Static White	2 x 22 Awg, 8 in 2 x 22 Awg, 6.5 ft	15000141 15000142
	Mini Male Connector IP67 for Static White Use to run cable from the fixture to the driver or to the previous fixture. Male mini connector on one side and open end cable on the other side.	Static White	2 x 22 Awg, 8 in	15000140
	Mini Extension IP67 for Static White Use to extend the distance between connection points. Female connector on one side and male connector on the other side.	Static White Static White	2 x 22 Awg, 4 in 2 x 22 Awg, 6.5 ft	15000143 15000144
	Mini Female Protection Cap IP67 for Static White Use to seal unused connectors and maintain IP67 ingress protection.	Static White	—	15000218

Drivers

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

Controllers

Item	Specifications	Downloads
	180/D DMX Controller for RGB/W and Tunable White Applications	180/D SPEC SHEET
	210/D Dali Controller for Static White Applications	210/D SPEC SHEET
	211/D-LG 0-10V Logarithmic Dimming Controller	211/D-LG SPEC SHEET
	211/D-LN 0-10V Linear Dimming Controller	211/D-LN SPEC SHEET
	212/D DMX Controller for Static White and Static Color Applications	212/D SPEC SHEET
	DimWheel DMX Wall Controller for RGB/W and Tunable White Applications	DIM WHEEL SPEC SHEET

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PRODUCT BROCHURE

INSTALLATION

IES FILES

DRIVERS & CONTROLS

LED LINEAR TECHNOLOGY

VOLTAGE DROP CALCULATOR