HADCO
by signify

Urban

Independence

VX151/VX152 Post top

The Hadco Independence LED post top luminaires are the perfect LED solution for traditional street lighting. Other application locations include: residential streets, city streets, campuses and parking lots. This luminaire offers the style of a traditional lantern

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

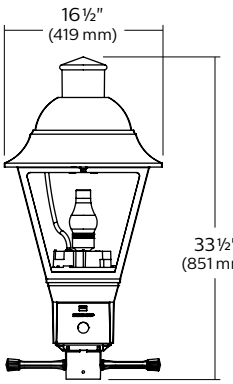
Ordering guide

Example: VX151-16-G3-A-C-2S-N-N-730-A-5-N-SP1-N

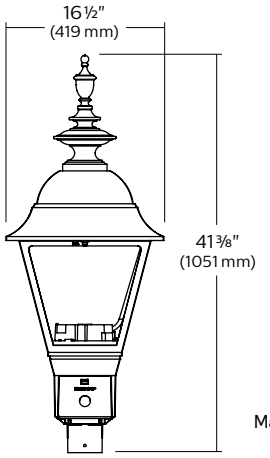
Series	LED Count	Gen	Finish	Panel	Distribution	Photo Control Receptacle	Future-Proof Control Receptacle	CRI/CCT	Voltage	Drive Current	Driver Option		Surge Protection	Ladder Rest
VX151 **VX152**[1]	**16** 16 LEDs	**G3** Gen 3	**A** Black **B** White **G** Verde **H** Bronze **J** Green	**C** Clear **F** Frosted **V** Vertical Ribbed	**2S** Type 2 Short **2SH** Type 2 Short House-side shield **3S** Type 3 Short **3SH** Type 3 Short House-side shield **3W** Type 3 Wide **3WH** Type 3 Wide House-side shield **5** Type 5	**N** None **E** 120 VAC button eye **H** 208/240/277 VAC button eye **R** 3-Pin Twist Lock Receptacle	**N** None **R7** 7-pin receptacle in cage	**730** 70CRI/3000K **740** 70 CRI/4000K **827** 80 CRI/2700K[3]	**A** 120-277 **B** 347-480[2]	**16 LEDs** **5** 530mA **7** 700mA **9** 900mA **1** 1050mA **32 LEDs** **5** 530mA **7** 700mA **8** 800mA **1** 1050mA **48 LEDs** **5** 530mA **7** 700mA	**Dynadimmer** **DA** 4 Hrs, 25% reduction **DB** 4 Hrs, 50% reduction **DC** 4 Hrs, 75% reduction **DD** 6 Hrs, 25% reduction **DE** 6 Hrs, 50% reduction **DF** 6 Hrs, 75% reduction **DG** 8 Hrs, 25% reduction **DH** 8 Hrs, 50% reduction **DJ** 8 Hrs, 75% reduction	**N** None **DL** DALI **S** FAWS Field adj watt selector **SRD** Sensor ready driver (standard configuration) **SRD1** Sensor ready driver (alternate configuration)	**SP1** 10kV/10kA Surge Protector **SP2** 20kV/20kA Surge Protector	**L** Ladder Rest **N** None
	32 32 LEDs[1,2]													
	48 48 LEDs[1]													

1. The 700mA (7) current is only compatible for 32 LEDs (32) and 48 LEDs (48) configurations.
2. Configurations with 347-480VAC (B) voltage are not compatible with 32 LEDs (32) at 530mA (5) currents, optional dimming or optional programming.
3. Consult factory for information and lead time.

Dimensions



VX151
Height: 33-1/2" (85 cm)
Width: 16-1/2" (42 cm)
Max EPA: 1.65 sq. ft.
Max Weight: 27.9 lbs (12.7 kg)



VX152
Height: 41-3/8" (105 cm)
Width: 16-1/2" (42 cm)
Max EPA: 1.65 sq. ft.
Max Weight: 27.9 lbs (12.7 kg)

VX151/VX152 Independence

Post top

LED Wattage and Lumen Values for 3000K fixtures

Ordering Code: (3000K)	Total LEDs	System current (mA)	Color Temp	Average System Watts[1] (W)	Type 2S			Type 3S			Type 3W			Type 5		
					Lumen Output[2]	BUG Rating	Efficacy (LPW)	Lumen Output[2]	BUG Rating	Efficacy (LPW)	Lumen Output[2]	BUG Rating	Efficacy (LPW)	Lumen Output[2]	BUG Rating	Efficacy (LPW)
Clear Panels																
VX151-16-G3-C-5-x-730	16	530	3000	29	2857	B1-U2-G1	99	3039	B1-U2-G1	105	3029	B1-U2-G1	105	3194	B1-U2-G1	111
VX151-16-G3-C-7-x-730	16	700	3000	38	3613	B1-U2-G1	95	3844	B1-U3-G1	101	3831	B1-U3-G1	101	4040	B1-U3-G1	106
VX151-16-G3-C-9-x-730	16	900	3000	49	4434	B1-U3-G1	91	4718	B1-U3-G1	96	4702	B1-U3-G2	96	4957	B1-U3-G1	101
VX151-16-G3-C-1-x-730	16	1050	3000	57	4998	B1-U2-G1	88	5316	B1-U3-G1	93	5300	B1-U3-G1	93	5587	B1-U3-G1	98
VX151-32-G3-C-5-x-730	32	530	3000	53	5562	B1-U3-G1	104	5822	B1-U3-G1	109	5875	B2-U3-G2	110	6123	B1-U3-G2	115
VX151-32-G3-C-7-x-730	32	700	3000	70	7023	B2-U3-G2	100	7351	B2-U3-G2	105	7417	B2-U3-G2	106	7730	B1-U3-G2	110
VX151-32-G3-C-8-x-730	32	800	3000	80	7816	B1-U3-G1	97	8183	B1-U3-G1	102	8256	B1-U3-G2	103	8604	B1-U3-G2	107
VX151-32-G3-C-1-x-730	32	1050	3000	108	9817	B2-U3-G2	91	10275	B2-U3-G2	95	10368	B2-U3-G2	96	10805	B1-U3-G2	100
VX151-48-G3-C-5-x-730	48	530	3000	80.8	8480	B2-U3-G2	105	8877	B1-U3-G2	110	8957	B2-U3-G2	111	9335	B1-U3-G2	116
VX151-48-G3-C-7-x-730	48	700	3000	105	10646	B2-U3-G2	102	11144	B2-U3-G2	106	11244	B2-U3-G2	107	11719	B2-U3-G2	112
Frosted Panels																
VX151-16-G3-F-5-x-730	16	530	3000	29	2621	B1-U2-G1	91	2788	B1-U2-G1	96	2779	B1-U2-G1	96	2930	B1-U2-G1	101
VX151-16-G3-F-7-x-730	16	700	3000	38	3315	B1-U2-G1	87	3527	B1-U3-G1	93	3515	B1-U3-G1	92	3706	B1-U3-G1	97
VX151-16-G3-F-9-x-730	16	900	3000	49	4068	B1-U3-G1	83	4328	B1-U3-G1	89	4314	B1-U3-G2	88	4548	B1-U3-G1	93
VX151-16-G3-F-1-x-730	16	1050	3000	57	4585	B1-U2-G1	81	4877	B1-U3-G1	86	4862	B1-U3-G1	85	5126	B1-U3-G1	90
VX151-32-G3-F-5-x-730	32	530	3000	53	5103	B1-U3-G1	96	5341	B1-U3-G1	100	5390	B2-U3-G2	101	5617	B1-U3-G2	105
VX151-32-G3-F-7-x-730	32	700	3000	70	6443	B2-U3-G2	92	6744	B2-U3-G2	96	6805	B2-U3-G2	97	7092	B1-U3-G2	101
VX151-32-G3-F-8-x-730	32	800	3000	80	7171	B1-U3-G1	89	7507	B1-U3-G1	93	7574	B1-U3-G2	94	7894	B1-U3-G2	98
VX151-32-G3-F-1-x-730	32	1050	3000	108	9006	B2-U3-G2	83	9427	B2-U3-G2	87	9512	B2-U3-G2	88	9913	B1-U3-G2	91
VX151-48-G3-F-5-x-730	48	530	3000	80.8	7780	B2-U3-G2	96	8144	B1-U3-G2	101	8217	B2-U3-G2	102	8564	B1-U3-G2	106
VX151-48-G3-F-7-x-730	48	700	3000	105	9767	B2-U3-G2	93	10224	B2-U3-G2	98	10316	B2-U3-G2	98	10751	B2-U3-G2	103
Vertical Ribbed Panels																
VX151-16-G3-V-5-x-730	16	530	3000	29	2750	B1-U2-G1	95	2940	B1-U2-G1	102	2920	B1-U3-G1	101	3096	B2-U3-G1	107
VX151-16-G3-V-7-x-730	16	700	3000	38	3479	B1-U2-G1	91	3719	B1-U2-G1	98	3694	B1-U3-G1	97	3916	B2-U3-G1	103
VX151-16-G3-V-9-x-730	16	900	3000	49	4269	B1-U3-G1	87	4563	B1-U3-G1	93	4532	B1-U3-G2	93	4806	B3-U3-G1	98
VX151-16-G3-V-1-x-730	16	1050	3000	57	4811	B1-U3-G1	85	5143	B1-U3-G1	90	5108	B1-U3-G1	90	5416	B3-U3-G1	95
VX151-32-G3-V-5-x-730	32	530	3000	53	5379	B1-U3-G1	101	5601	B1-U3-G1	105	5610	B1-U3-G1	105	5883	B3-U3-G2	110
VX151-32-G3-V-7-x-730	32	700	3000	70	6792	B2-U3-G2	97	7072	B1-U3-G2	101	7083	B1-U3-G2	101	7428	B3-U3-G2	106
VX151-32-G3-V-8-x-730	32	800	3000	80	7560	B2-U3-G2	94	7871	B1-U3-G2	98	7884	B2-U3-G2	98	8268	B3-U3-G2	103
VX151-32-G3-V-1-x-730	32	1050	3000	108	9494	B2-U3-G2	88	9885	B2-U3-G2	91	9901	B2-U3-G2	91	10383	B4-U3-G2	96
VX151-48-G3-V-5-x-730	48	530	3000	80.8	8202	B2-U3-G2	102	8540	B2-U3-G2	106	8553	B2-U3-G2	106	8970	B4-U3-G2	111
VX151-48-G3-V-7-x-730	48	700	3000	105	10297	B2-U3-G2	98	10721	B2-U3-G2	102	10738	B2-U3-G2	102	11261	B4-U3-G2	107

Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout - contact Applications at outdoorlighting.applications@signify.com.
Note: Some data may be scaled based on tests of similar. But not identical luminaires.

VX151/VX152 Independence

Post top

LED Wattage and Lumen Values for 4000K fixtures

Ordering Code: (3000K)	Total LEDs	System current (mA)	Color Temp	Average System Watts[1] (W)	Type 2S			Type 3S			Type 3W			Type 5		
					Lumen Output[2]	BUG Rating	Efficacy (LPW)	Lumen Output[2]	BUG Rating	Efficacy (LPW)	Lumen Output[2]	BUG Rating	Efficacy (LPW)	Lumen Output[2]	BUG Rating	Efficacy (LPW)
Clear Panels																
VX151-16-G3-C-5-x-740	16	530	4000	29	3141	B1-U2-G1	107	3341	B1-U2-G1	114	3330	B1-U2-G1	114	3511	B1-U2-G1	120
VX151-16-G3-C-7-x-740	16	700	4000	39	3973	B1-U2-G1	103	4226	B1-U3-G1	110	4213	B1-U3-G1	109	4442	B1-U3-G1	115
VX151-16-G3-C-9-x-740	16	900	4000	49	4876	B1-U3-G1	99	5186	B1-U3-G1	105	5170	B1-U3-G2	105	5450	B1-U3-G1	110
VX151-16-G3-C-1-x-740	16	1050	4000	58	5495	B1-U2-G1	96	5846	B1-U3-G1	102	5826	B1-U3-G1	101	6143	B1-U3-G1	107
VX151-32-G3-C-5-x-740	32	530	4000	54	6115	B1-U3-G1	113	6402	B1-U3-G1	119	6459	B2-U3-G2	120	6731	B1-U3-G2	125
VX151-32-G3-C-7-x-740	32	700	4000	71	7722	B2-U3-G2	109	8082	B2-U3-G2	114	8155	B2-U3-G2	115	8499	B1-U3-G2	120
VX151-32-G3-C-8-x-740	32	800	4000	81	8595	B1-U3-G1	106	8996	B1-U3-G1	111	9078	B1-U3-G2	112	9460	B1-U3-G2	116
VX151-32-G3-C-1-x-740	32	1050	4000	110	10793	B2-U3-G2	98	11298	B2-U3-G2	103	11399	B2-U3-G2	104	11880	B1-U3-G2	108
VX151-48-G3-C-5-x-740	48	530	4000	82	9324	B2-U3-G2	114	9760	B1-U3-G2	119	9848	B2-U3-G2	121	10262	B1-U3-G2	126
VX151-48-G3-C-7-x-740	48	700	4000	106	11706	B2-U3-G2	110	12253	B2-U3-G2	116	12363	B2-U3-G2	117	12884	B2-U3-G2	122
Frosted Panels																
VX151-16-G3-F-5-x-740	16	530	4000	29	2882	B1-U2-G1	99	3065	B1-U2-G1	105	3055	B1-U2-G1	105	3221	B1-U2-G1	110
VX151-16-G3-F-7-x-740	16	700	4000	39	3645	B1-U2-G1	95	3877	B1-U3-G1	101	3865	B1-U3-G1	100	4075	B1-U3-G1	106
VX151-16-G3-F-9-x-740	16	900	4000	49	4473	B1-U3-G1	90	4758	B1-U3-G1	96	4743	B1-U3-G2	96	5000	B1-U3-G1	101
VX151-16-G3-F-1-x-740	16	1050	4000	58	5041	B1-U2-G1	88	5363	B1-U3-G1	93	5345	B1-U3-G1	93	5636	B1-U3-G1	98
VX151-32-G3-F-5-x-740	32	530	4000	54	5610	B1-U3-G1	104	5873	B1-U3-G1	109	5926	B2-U3-G2	110	6175	B1-U3-G2	114
VX151-32-G3-F-7-x-740	32	700	4000	71	7084	B2-U3-G2	100	7415	B2-U3-G2	104	7482	B2-U3-G2	105	7797	B1-U3-G2	110
VX151-32-G3-F-8-x-740	32	800	4000	81	7885	B1-U3-G1	97	8253	B1-U3-G1	102	8328	B1-U3-G2	102	8679	B1-U3-G2	107
VX151-32-G3-F-1-x-740	32	1050	4000	110	9902	B2-U3-G2	90	10365	B2-U3-G2	95	10458	B2-U3-G2	95	10899	B1-U3-G2	99
VX151-48-G3-F-5-x-740	48	530	4000	82	8554	B2-U3-G2	105	8954	B1-U3-G2	110	9035	B2-U3-G2	111	9415	B1-U3-G2	115
VX151-48-G3-F-7-x-740	48	700	4000	106	10739	B2-U3-G2	101	11241	B2-U3-G2	106	11342	B2-U3-G2	107	11820	B2-U3-G2	112
Vertical Ribbed Panels																
VX151-16-G3-V-5-x-740	16	530	4000	29	3023	B1-U2-G1	103	3232	B1-U2-G1	111	3210	B1-U3-G1	110	3404	B2-U3-G1	116
VX151-16-G3-V-7-x-740	16	700	4000	39	3825	B1-U2-G1	99	4089	B1-U2-G1	106	4061	B1-U3-G1	105	4306	B2-U3-G1	112
VX151-16-G3-V-9-x-740	16	900	4000	49	4693	B1-U3-G1	95	5017	B1-U3-G1	101	4983	B1-U3-G1	101	5284	B3-U3-G1	107
VX151-16-G3-V-1-x-740	16	1050	4000	58	5289	B1-U3-G1	92	5655	B1-U3-G1	98	5616	B1-U3-G1	98	5955	B3-U3-G1	104
VX151-32-G3-V-5-x-740	32	530	4000	54	5914	B1-U3-G1	110	6158	B1-U3-G1	114	6168	B1-U3-G1	114	6468	B3-U3-G2	120
VX151-32-G3-V-7-x-740	32	700	4000	71	7467	B2-U3-G2	105	7775	B1-U3-G2	110	7788	B1-U3-G2	110	8167	B3-U3-G2	115
VX151-32-G3-V-8-x-740	32	800	4000	81	8312	B2-U3-G2	102	8654	B2-U3-G2	106	8668	B2-U3-G2	107	9090	B3-U3-G2	112
VX151-32-G3-V-1-x-740	32	1050	4000	110	10438	B2-U3-G2	95	10868	B2-U3-G2	99	10886	B2-U3-G2	99	11416	B4-U3-G2	104
VX151-48-G3-V-5-x-740	48	530	4000	82	9017	B2-U3-G2	110	9389	B2-U3-G2	115	9404	B2-U3-G2	115	9862	B4-U3-G2	121
VX151-48-G3-V-7-x-740	48	700	4000	106	11321	B2-U3-G2	107	11787	B2-U3-G2	111	11806	B2-U3-G2	111	12381	B4-U3-G2	117

Actual performance may vary due to installation variables including optics, mounting/ceiling height, dirt depreciation, light loss factor, etc.; highly recommended to confirm performance with a layout - contact Applications at outdoorlighting.applications@signify.com.
Note: Some data may be scaled based on tests of similar. But not identical luminaires.

Specifications

Roof: Hinged roof with stainless steel thumb screw. 360 low-copper die-cast aluminumalloy.

Panels: Three panel options. Clear panels are made of an U.V Stabilized sheet material and include a frosted decorative glass chimney. Vertical Rib panels are U.V. stabilized, injection molded with internal vertical ribs. Frosted Panels are U.V. Stabilized sheet material. All panels have tool-less removal for ease ofcleaning.

Fitter: Slip Fitter Dimensions: 3" I.D. x 3" deep. Tool-less hinge door to access wiringarea.

LEDgine is composed of five main components: Heat Sink, Lens, LED lamp, Optical System, and Driver. Electrical components are RoHS compliant.

VX151/VX152 Independence

Post top

Specifications

LED Module

Composed of high-performance white LEDs. Color temperature as per ANSI/NEMA bin - Neutral White, 4000 Kelvin nominal (3985K +/- 275K or 3710K to 4260K) or Warm White, 3000 Kelvin nominal (3045K +/- 175K or 2870K to 3220K), CRI 70 Min. 75 Typical.

Heat Sink

Made of cast aluminum optimizing the LEDs efficiency and life. Product does not use any cooling device with moving parts (only passive cooling device).

Optical System

Type 2, 3, 3W, 4 and Type 5 composed of high performance optical grade PMMA acrylic refractor lenses to achieve desired distribution optimized to get maximum spacing, target lumens and a superior lighting uniformity. Optical system is rated IP66. Performance shall be tested per LM 63, LM 79 and TM 15 (IESNA) certifying its photometric performance. Street side indicated.

Driver

Driver comes standard with 0-10V dimming capability. High power factor of 95%. Electronic driver, operating range 50/60 Hz. Auto adjusting universal voltage input from 120 to 277 VAC rated for both application line to line or line to neutral, Class I, THD of 20% max. Maximum ambient operating temperature from 40°F (4°C) to 130°F (55°C). Certified in compliance to UL1310 cULus requirement (dry and damp location). Assembled on a unitized removable tray with Tyco quick disconnect plug resisting to 221°F (105°C). The current supplying the LEDs will be reduced by the driver if the driver experiences internal overheating as a protection to the LEDs and the electrical components. Output is protected from short circuits, voltage overload and current overload. Automatic recovery after correction. Standard built in driver surge protection of 2.5kV (min).

Dimming Options

DA: 4 Hrs 25% Reduction
DB: 4 Hrs 50% Reduction
DC: 4 Hrs 75% Reduction
DD: 6 Hrs 25% Reduction
DE: 6 Hrs 50% Reduction
DF: 6 Hrs 75% Reduction
DG: 8 Hrs 25% Reduction
DH: 8 Hrs 50% Reduction
DJ: 8 Hrs 75% Reduction

Surge Protection

Surge protector tested in accordance with ANSI/IEEE C62.45 per ANSI/IEEE C62.41.2 Scenario I Category C High Exposure 10kV/10kA waveforms for Line Ground, Line Neutral and Neutral Ground, and in accordance with U.S. DOE (Department of Energy) MSSLC (Municipal Solid State Street Lighting Consortium) model specification for LED roadway luminaires electrical immunity requirements for High Test Level 10kV / 10kA. Option for SP2 20kV/20kA.

Luminaire Useful Life

Refer to IES files for energy consumption and delivered lumens for each option. Based on ISTMT in situ thermal testing in accordance with UL1598 and UL8750, using LM-80 data from LED manufacturers and engineering prediction methods, the luminaire useful life is expected to reach 100,000+ hours with >L70 lumen maintenance @ 25°C (48 LED and 64LED at 530mA is 68,000). Luminaire useful life accounts for LED lumen maintenance and additional factors, including LED life, driver life, PCB substrate, solder joints on/off cycles and burning hours for nominal applications.

Hardware

All non-ferrous fasteners prevent corrosion and ensure longer life.

Wiring

18 AWG wire, 6" (152mm) minimum exceeding from luminaire.

Options

L
Ladder Rest

HS
House side shield

SP2 20kV/20kA integral surge protector (optional)

Finish

Color in accordance with the AAMA 2603 standard. Application of polyester powder coat paint (4 mils/100 microns) with } 1 mils / 24 microns of tolerance. The Thermosetting resins provides a discoloration resistant finish in accordance with the ASTM D2244 standard, as well as luster retention in keeping with the ASTM D523 standard and humidity proof in accordance with the ASTM D2247 standard. The surface treatment achieves a minimum of 2000 hours for salt spray resistant finish in accordance with testing performed and per ASTM B117 standard.

LED products manufacturing standard

electrostatic discharge (ESD) such as light emitting diodes (LEDs) are assembled in compliance with IEC61340 5 1 and ANSI/ESD S20.20 standards so as to eliminate ESD events that could decrease the useful life of the product.

Quality Control

The manufacturer must provide a written confirmation of its ISO 9001 2008 and ISO 14001 2004 International Quality Standards Certification.

Meets the ANSI C136.31 2010, American national Standard for Roadway Luminaire Vibration specifications for Normal Applications.

Certifications and Compliance

cETL listed to Canadian safety standards for wet locations. Manufactured to ISO 9001:2008 Standards. UL8750 and UL1598 compliant. ETL listed to U.S. safety standards for wet locations. cETL listed to Canadian safety standards for wet locations. LM80 & LM79 tested. Listed on the DesignLightsTM Consortium (DLC) Qualified Products List (QPL).

IP Rating

The LED optics chamber is IP66 rated.

LED Performance

Predicted lumen depreciation data[1]				
Ambient Temperature (°C)	Driver mA	Calculated L_{70} hours[1,2]	L_{70} per TM-21[2,3]	Lumen Maintenance % @ 60,000 hours
25°C	up to 700 mA	>100,000	>60,000	90%

1. Predicted performance derived from LED manufacturer's data and engineering design estimates, based on IESNA LM-80 methodology. Actual experience may vary due to field application conditions.
2. L_{70} is the predicted time when LED performance depreciates to 70% of initial lumen output.
3. Calculated per IESNA TM21-11. Published L_{70} hours limited to 6 times actual LED test hours.

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