HADCO by signify

Urban

Architectural

VX600 Post top

Project:

Location:

Cat.No:

Type:

Lamps: Qty:

Notes:

The Hadco Architectural LED post top is a masterful blend of tradition and modern technology captured in sturdy cast aluminum, rendering years of maintenance-free operation. It creates a warm and friendly ambiance with its design while at the same time offering high-end technology and photometric performance is the strength of this beautiful luminaire.

Ordering guide

Example: VX600-48-A-C-2-N-W-A-3-N-N-N-N-SP1-N

Series	LED count	Gen	Finish	Panels	Optics	Photo Control	Color Temp	Voltage	Drive Current	Integral Controls[2]	Options #1[2]	Options #2[2]	Options #3[2]	Surge Protect	House Side Shield
VX600	**32**[1,3] 32 LEDs **48** 48 LEDs **64** 64 LEDs	**G2** Gen 2	**A** Black **B** White **G** Verde **H** Bronze **J** Green	**C** Clear **F** Frosted	**2** Type 2 **3** Type 3 **3W** Type 3 Wide **4** Type 4 **5** Type 5	**E** 120 VAC button eye **H** 208/240/277 VAC button eye **R** 3-Pin Twist Lock Receptacle **N** None	**N** Neutral 4000K **W** Warm 3000K	**A** 120-277 **B**[2,3] 347-480	**3** 350mA **5** 530mA **7**[1] 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 **DL** DALI **N** None	**AST** Adjustable Start Up Time **N** None	**CLO** Constant Light Output **N** None	**OTL** Over The Life **N** None	**SP1** 10kV/10kA Surge Protector **SP2** 20kV/20kA Surge Protector	**H** House Side Shield **N** None

1. The 700mA (7) current is only compatible for 32 LEDs (32) configurations.
2. Configurations with 347-480VAC (B) voltage are not compatible with optional dimming or optional programming.
3. Configurations with 32 LEDs (32) at 350mA (3) and 530mA (5) currents are not compatible with 347-480 VAC (B) voltage.

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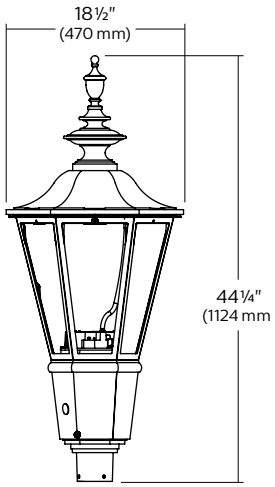
Dimensions



VX600
Height: 44 1/4" (113cm)
Width: 18 1/2" (47cm)
Max. EPA: 2.8 sq. ft
Max. Weight: 34 lbs

LED Wattage and Lumen Values for 3000K fixtures

Ordering Code: (3000K)	Total LEDs	System current (mA)	Average System Watts[1] (W)	Type 2			Type 3			Type 3W			Type 4			Type 5		
				Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating
Clear Panel VX600 3000K																		
32-G2-C-x-W3	32	350	38	2866	75	B1-U2-G1	2858	75	B1-U2-G1	2905	76	B1-U2-G1	2881	76	B1-U2-G1	2979	78	B2-U2-G1
32-G2-C-x-W5	32	530	53	4111	78	B1-U2-G1	4099	77	B1-U2-G1	4167	79	B1-U2-G1	4132	78	B1-U2-G1	4273	81	B3-U3-G1
32-G2-C-x-W7	32	700	71	5185	73	B1-U2-G1	5170	73	B1-U2-G1	5255	74	B1-U3-G1	5212	73	B1-U3-G1	5389	76	B3-U3-G1
48-G2-C-x-W3	48	350	51	4299	84	B1-U2-G1	4287	84	B1-U2-G1	4358	85	B1-U2-G1	4322	85	B1-U2-G1	4469	88	B3-U3-G1
48-G2-C-x-W5	48	530	79	6166	78	B1-U3-G1	6149	78	B1-U3-G1	6250	79	B1-U3-G2	6199	78	B1-U3-G2	6410	81	B3-U3-G2
64-G2-C-x-W3	64	350	68	5739	84	B1-U2-G1	5711	84	B1-U2-G1	5866	86	B1-U3-G2	5708	84	B1-U3-G2	5963	88	B3-U3-G1
64-G2-C-x-W5	64	530	104	8232	79	B2-U3-G2	8192	79	B2-U3-G2	8414	81	B2-U3-G2	8187	79	B2-U3-G2	8553	82	B3-U3-G2
Frosted Panel VX600 3000K																		
32-G2-F-x-W3	32	350	38	2637	69	B1-U3-G2	2651	70	B1-U3-G2	2694	71	B1-U3-G2	2663	70	B1-U3-G2	2764	73	B1-U3-G2
32-G2-F-x-W5	32	530	53	3782	71	B1-U3-G2	3803	72	B1-U3-G2	3864	73	B1-U3-G3	3820	72	B1-U3-G3	3965	75	B2-U3-G2
32-G2-F-x-W7	32	700	71	4770	67	B1-U3-G3	4796	68	B1-U3-G3	4874	69	B1-U3-G3	4817	68	B1-U3-G3	5000	70	B2-U3-G3
48-G2-F-x-W3	48	350	51	3956	78	B1-U3-G2	3977	78	B1-U3-G3	4041	79	B1-U3-G3	3995	78	B1-U3-G3	4146	81	B2-U3-G2
48-G2-F-x-W5	48	530	79	5674	72	B2-U3-G3	5704	72	B2-U3-G3	5796	73	B2-U3-G3	5730	73	B1-U3-G3	5947	75	B2-U3-G3
64-G2-F-x-W3	64	350	68	5374	79	B1-U3-G3	5262	77	B1-U3-G3	5391	79	B1-U3-G3	5259	77	B1-U3-G3	5625	83	B2-U3-G3
64-G2-F-x-W5	64	530	104	7708	74	B2-U4-G3	7548	73	B2-U3-G3	7733	74	B2-U3-G4	7544	73	B2-U3-G4	8069	78	B3-U4-G3

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@philips.com.

Note: Some data may be scaled based on tests of similar. But not identical luminaires.

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LED Wattage and Lumen Values for 4000K fixtures

Ordering Code: (4000K)	Total LEDs	System current (mA)	Average System Watts[1] (W)	Type 2			Type 3			Type 3W			Type 4			Type 5		
				Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating	Lumen Output[2]	Efficacy (LPW)	BUG Rating
Clear Panel VX600 4000K																		
32-G2-C-x-N3	32	350	38	3253	86	B1-U2-G1	3244	85	B1-U2-G1	3297	87	B1-U2-G1	3270	86	B1-U2-G1	3381	89	B2-U2-G1
32-G2-C-x-N5	32	530	53	4666	88	B1-U2-G1	4653	88	B1-U2-G1	4729	89	B1-U2-G1	4690	88	B1-U2-G1	4850	92	B3-U3-G1
32-G2-C-x-N7	32	700	71	5884	83	B1-U2-G1	5868	83	B1-U3-G1	5964	84	B1-U3-G2	5915	83	B1-U3-G2	6116	86	B3-U3-G1
48-G2-C-x-N3	48	350	51	4879	96	B1-U2-G1	4865	95	B1-U2-G1	4945	97	B1-U3-G1	4905	96	B1-U2-G1	5071	99	B3-U3-G1
48-G2-C-x-N5	48	530	79	6998	89	B2-U3-G2	6979	88	B1-U3-G2	7094	90	B2-U3-G2	7035	89	B1-U3-G2	7274	92	B3-U3-G2
64-G2-C-x-N3	64	350	68	6513	96	B1-U3-G1	6482	95	B1-U3-G1	6657	98	B2-U3-G2	6478	95	B1-U3-G2	6767	100	B3-U3-G2
64-G2-C-x-N5	64	530	104	9343	90	B2-U3-G2	9297	89	B2-U3-G2	9549	92	B2-U3-G2	9292	89	B2-U3-G2	9707	93	B4-U3-G2
Frosted Panel VX600 4000K																		
32-G2-F-x-N3	32	350	38	2993	79	B1-U3-G2	3009	79	B1-U3-G2	3057	80	B1-U3-G2	3022	80	B1-U3-G2	3137	83	B2-U3-G2
32-G2-F-x-N5	32	530	53	4293	81	B1-U3-G2	4316	81	B1-U3-G3	4386	83	B1-U3-G3	4335	82	B1-U3-G3	4500	85	B2-U3-G3
32-G2-F-x-N7	32	700	71	5414	76	B1-U3-G3	5443	77	B1-U3-G3	5531	78	B2-U3-G3	5467	77	B1-U3-G3	5675	80	B2-U3-G3
48-G2-F-x-N3	48	350	51	4489	88	B1-U3-G3	4513	88	B1-U3-G3	4586	90	B1-U3-G3	4533	89	B1-U3-G3	4705	92	B2-U3-G3
48-G2-F-x-N5	48	530	79	6439	82	B2-U3-G3	6473	82	B2-U3-G3	6578	83	B2-U3-G3	6503	82	B2-U3-G3	6749	85	B3-U3-G3
64-G2-F-x-N3	64	350	68	6099	90	B2-U3-G3	5972	88	B2-U3-G3	6119	90	B2-U3-G3	5969	88	B1-U3-G3	6384	94	B3-U3-G3
64-G2-F-x-N5	64	530	104	8748	84	B2-U4-G4	8566	82	B2-U4-G4	8776	84	B2-U4-G4	8562	82	B2-U4-G4	9158	88	B3-U4-G4

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@philips.com.

Note: Some data may be scaled based on tests of similar. But not identical luminaires.

Specifications

Housing

Roof: Hinged roof with stainless steel thumb screw. 356HM low-copper cast aluminum alloy.

Panels: Two panel options. Clear panels are made of an U.V Stabilized sheet material and include a frosted decorative glass chimney. Frosted Panels are U.V. Stabilized sheet material. All panels are attached with a clip and can easily be removed for cleaning.

Fitter: Slip Fitter Dimensions: 3" I.D. x 3" deep. Removable door to access photocontrol components.

Light Engine

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

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).

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Specifications (continued)

Driver Options

AST: Pre-set driver for progressive start-up of the LED module(s) to optimize energy management and enhance visual comfort at start-up.

CLO: Pre-set driver to manage the lumen depreciation by adjusting the power given to the LEDs offering the same lighting intensity during the entire lifespan of the LED module.

OTL: Pre-set driver to signal end of life of the LED module(s) for better fixture management.

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

HS House side shield

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

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.

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.

Warranty

5 year extended warranty.

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