



Hadco's Teardrop LED pendant seamlessly replaces HID technology while maintaining that traditional "teardrop" look. The Teardrop uses latest LED technology which maximizes energy savings and lowered maintenance cost to reduce your total cost of ownership. By combining modern LED technology and traditional design, the Teardrop LED luminaires are perfectly suited for several applications including residential streets, city streets, campuses, parking lots and retail centers.

Project: _____
 Location: _____
 Cat.No: _____
 Type: _____
 Lamps: _____ Qty: _____
 Notes: _____

Ordering guide

example: TXF9-48-G3-N-A-GF-2-740-A-5-DA-SP1

Series	LEDs	Gen.	Mountings	Finishes	Lenses	Optics	Color Temps	Voltages	Currents
TXF9		G3							
TXF9 Teardrop LED pendant	32 32 ³ 48 48 64 64 80 80 ¹	G3 Gen3	N Cast Neck P Threaded Pipe	A Black B White G Verde H Bronze J Green	GF Flat Glass KL Acrylic Long Globe KS Acrylic Short Globe	2 Type II 2H Type 2HSS 3 Type III 3H Type 3 HSS 3W Type 3 Wide 3WH Type 3 wide HSS 4 Type IV 5 Type V	730 3000K 740 4000K	A 120-277 VAC B 347-480 VAC ^{2,3}	3 350mA 5 530 mA 7 700mA 1 1050mA ¹
Receptacle 7 pin is available for this luminaire but must be selected with the arm bracket. It is not part of the luminaire code. See bracket ordering guide for coding.									

Ordering guide continued

Driver options	Surge protection
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 DALI Compatible with DALI S FAWS Field adj watt selector SRD Sensor ready driver (standard configuration) ¹ SRD1 Sensor ready driver (alternate configuration) ¹ N No dimming	SP1 10kV/10kA (standard) SP2 20kV/20kA (optional)

- Configurations with 80 (80) LED array board are not compatible with the 700mA (7) drive current (consult factory for this option as a custom solution).
- Configurations with 347-480VAC (B) voltage are not compatible with optional dimming or optional programming.
- Configurations with 32 (32) LEDs at 350mA (3) and 530mA (5) currents are not compatible with 347-480 VAC (B) voltage.

TXF9 Teardrop

Pendant

LED Wattage and Lumen Values for 3000K & 4000K fixtures with Flat Glass Lens

Ordering Code:	Total LEDs	System current (mA)	Average System Watts (W)	2			3			3W			4			5		
				Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
Flat Glass Lens (GF) @ 3000K																		
TXF932-G3-GF-x-730-3	32	350	36	4604	129	B1-U0-G1	4467	125	B1-U0-G1	4487	126	B1-U0-G1	4533	127	B1-U0-G1	4474	126	B3-U0-G1
TXF932-G3-GF-x-730-5	32	530	53	6687	125	B2-U0-G1	6488	122	B1-U0-G1	6517	122	B1-U0-G2	6583	124	B1-U0-G2	6499	122	B3-U0-G1
TXF932-G3-GF-x-730-7	32	700	71	8528	120	B2-U0-G1	8275	117	B2-U0-G2	8312	117	B2-U0-G2	8397	118	B2-U0-G2	8289	117	B3-U0-G2
TXF932-G3-GF-x-730-1	32	1050	107	11620	108	B3-U0-G2	11275	105	B2-U0-G2	11326	106	B2-U0-G2	11441	107	B2-U0-G2	11294	105	B4-U0-G2
TXF948-G3-GF-x-730-3	48	350	53	7089	133	B2-U0-G1	6878	129	B1-U0-G1	6909	130	B1-U0-G2	6979	131	B1-U0-G2	6889	129	B3-U0-G1
TXF948-G3-GF-x-730-5	48	530	79	10035	127	B2-U0-G2	9737	123	B3-U0-G2	9781	124	B2-U0-G2	9880	125	B2-U0-G2	9753	123	B3-U0-G2
TXF948-G3-GF-x-730-7	48	700	106	12681	120	B3-U0-G2	12304	117	B2-U0-G2	12360	117	B2-U0-G2	12485	118	B2-U0-G2	12324	117	B4-U0-G2
TXF964-G3-GF-x-730-3	64	350	70	9317	134	B2-U0-G2	9040	130	B2-U0-G2	9081	130	B2-U0-G2	9173	132	B2-U0-G2	9055	130	B3-U0-G2
TXF964-G3-GF-x-730-5	64	530	104	13193	127	B3-U0-G2	12801	123	B2-U0-G2	12859	124	B2-U0-G2	12989	125	B2-U0-G2	12822	123	B4-U0-G2
TXF964-G3-GF-x-730-7	64	700	140	16704	120	B3-U0-G2	16208	116	B3-U0-G2	16281	117	B2-U0-G3	16446	118	B3-U0-G3	16235	116	B4-U0-G2
TXF980-G3-GF-x-730-3	80	350	86	11523	134	B3-U0-G2	11181	130	B2-U0-G2	11232	131	B2-U0-G2	11345	132	B2-U0-G2	11199	130	B4-U0-G2
TXF980-G3-GF-x-730-5	80	530	130	16516	127	B3-U0-G2	16026	123	B3-U0-G2	16098	123	B2-U0-G3	16261	125	B3-U0-G2	16052	123	B4-U0-G2
TXF980-G3-GF-x-730-7	80	700	173	20590	119	B3-U0-G3	19979	115	B3-U0-G2	20069	116	B3-U0-G3	20272	117	B3-U0-G3	20012	116	B5-U0-G3
Flat Glass Lens (GF) @ 4000K																		
TXF932-G3-GF-x-740-3	32	350	36	4926	138	B1-U0-G1	4780	134	B1-U0-G1	4802	135	B1-U0-G1	4850	136	B1-U0-G1	4787	134	B3-U0-G1
TXF932-G3-GF-x-740-5	32	530	53	7155	134	B2-U0-G1	6942	130	B1-U0-G1	6973	131	B1-U0-G2	7044	132	B1-U0-G2	6954	130	B3-U0-G1
TXF932-G3-GF-x-740-7	32	700	71	9125	129	B2-U0-G1	8854	125	B2-U0-G2	8894	125	B2-U0-G2	8985	127	B2-U0-G2	8869	125	B3-U0-G2
TXF932-G3-GF-x-740-1	32	1050	107	12433	116	B3-U0-G2	12064	112	B2-U0-G2	12119	113	B2-U0-G2	12242	114	B2-U0-G2	12085	113	B4-U0-G2
TXF948-G3-GF-x-740-3	48	350	53	7585	142	B2-U0-G1	7359	138	B1-U0-G1	7392	139	B1-U0-G2	7468	140	B1-U0-G2	7371	138	B3-U0-G1
TXF948-G3-GF-x-740-5	48	530	79	10737	136	B2-U0-G2	10419	132	B2-U0-G2	10466	132	B2-U0-G2	10572	134	B2-U0-G2	10436	132	B3-U0-G2
TXF948-G3-GF-x-740-7	48	700	106	13569	128	B3-U0-G2	13165	125	B2-U0-G2	13224	125	B2-U0-G2	13359	127	B2-U0-G2	13187	125	B4-U0-G2
TXF964-G3-GF-x-740-3	64	350	70	9969	143	B2-U0-G2	9673	139	B2-U0-G2	9717	139	B2-U0-G2	9815	141	B2-U0-G2	9689	139	B3-U0-G2
TXF964-G3-GF-x-740-5	64	530	104	14117	136	B3-U0-G2	13697	132	B2-U0-G2	13759	132	B2-U0-G2	13898	134	B2-U0-G2	13720	132	B4-U0-G2
TXF964-G3-GF-x-740-7	64	700	140	17873	128	B3-U0-G2	17343	124	B3-U0-G2	17421	125	B2-U0-G3	17597	126	B3-U0-G3	17371	125	B4-U0-G2
TXF980-G3-GF-x-740-3	80	350	86	12330	144	B3-U0-G2	11964	139	B2-U0-G2	12018	140	B2-U0-G2	12139	141	B2-U0-G2	11983	139	B4-U0-G2
TXF980-G3-GF-x-740-5	80	530	130	17672	136	B3-U0-G2	17148	132	B3-U0-G2	17225	132	B2-U0-G3	17399	133	B3-U0-G2	17176	132	B4-U0-G2
TXF980-G3-GF-x-740-7	80	700	173	22031	127	B3-U0-G3	21378	124	B3-U0-G2	21475	124	B3-U0-G3	21691	125	B3-U0-G3	21413	124	B5-U0-G3

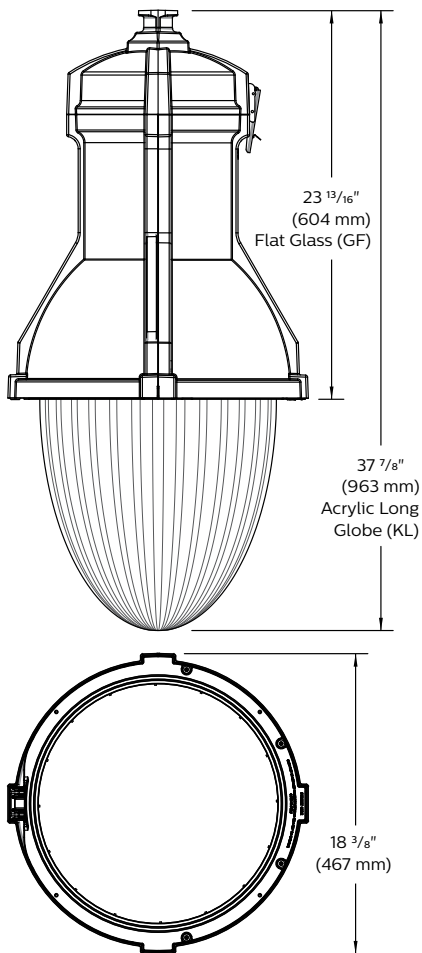
LED Wattage and Lumen Values for 3000K & 4000K fixtures with Long Globe Lens

Ordering Code:	Total LEDs	System current (mA)	Average System Watts (W)	2			3			3W			4			5		
				Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating	Lumen Output	Efficacy (LPW)	BUG Rating
Long Globe (KL) @ 3000K																		
TXF932-G3-KL-x-730-3	32	350	36	4938	139	B1-U2-G1	4890	137	B1-U2-G1	4624	130	B1-U2-G1	4903	138	B1-U2-G2	4813	135	B3-U2-G1
TXF932-G3-KL-x-730-5	32	530	53	7172	135	B2-U3-G2	7103	133	B2-U3-G2	6716	126	B2-U3-G2	7121	134	B2-U2-G2	6992	131	B3-U2-G2
TXF932-G3-KL-x-730-7	32	700	71	9146	129	B2-U3-G2	9059	128	B2-U3-G2	8565	121	B2-U3-G2	9083	128	B2-U3-G2	8917	126	B4-U2-G2
TXF932-G3-KL-x-730-1	32	1050	107	12462	116	B3-U3-G3	12344	115	B2-U3-G2	11671	109	B2-U3-G3	12376	115	B2-U3-G3	12150	113	B4-U3-G2
TXF948-G3-KL-x-730-3	48	350	53	7603	143	B2-U3-G2	7530	141	B2-U3-G2	7119	134	B2-U3-G2	7549	142	B2-U3-G2	7411	139	B3-U2-G2
TXF948-G3-KL-x-730-5	48	530	79	10763	136	B2-U3-G2	10660	135	B2-U3-G2	10079	127	B2-U3-G2	10688	135	B2-U3-G2	10493	133	B4-U3-G2
TXF948-G3-KL-x-730-7	48	700	106	13600	129	B3-U3-G3	13470	128	B3-U3-G3	12737	121	B3-U3-G3	13505	128	B2-U3-G3	13258	126	B4-U3-G2
TXF964-G3-KL-x-730-3	64	350	70	9992	143	B2-U3-G2	9897	142	B2-U3-G2	9358	134	B2-U3-G2	9923	142	B2-U3-G2	9742	140	B4-U3-G2
TXF964-G3-KL-x-730-5	64	530	104	14149	136	B3-U3-G3	14014	135	B3-U3-G3	13251	128	B3-U3-G3	14051	135	B2-U3-G3	13794	133	B4-U3-G2
TXF964-G3-KL-x-730-7	64	700	140	17915	128	B3-U3-G3	17744	127	B3-U3-G3	16777	120	B3-U3-G3	17790	128	B3-U3-G3	17466	125	B5-U3-G3
TXF980-G3-KL-x-730-3	80	350	86	12358	144	B3-U3-G3	12241	143	B2-U3-G2	11574	135	B2-U3-G3	12272	143	B2-U3-G2	12048	140	B4-U3-G2
TXF980-G3-KL-x-730-5	80	530	130	17713	136	B3-U3-G3	17545	135	B3-U3-G3	16588	127	B3-U3-G4	17590	135	B3-U3-G3	17269	132	B5-U3-G3
TXF980-G3-KL-x-730-7	80	700	173	22083	128	B3-U3-G3	21873	126	B3-U3-G3	20680	119	B3-U3-G3	21929	127	B3-U3-G4	21529	124	B5-U3-G3
Long Globe (KL) @ 4000K																		
TXF932-G3-KL-x-740-3	32	350	36	5283	148	B1-U2-G1	5233	147	B1-U2-G1	4948	139	B1-U2-G1	5246	147	B1-U2-G2	5150	145	B3-U2-G1
TXF932-G3-KL-x-740-5	32	530	53	7674	144	B2-U3-G2	7600	143	B2-U3-G2	7185	135	B2-U3-G2	7620	143	B2-U2-G2	7481	140	B3-U2-G2
TXF932-G3-KL-x-740-7	32	700	71	9787	138	B2-U3-G2	9693	137	B2-U3-G2	9165	129	B2-U3-G2	9719	137	B2-U3-G2	9541	135	B4-U2-G2
TXF932-G3-KL-x-740-1	32	1050	107	13334	124	B3-U3-G3	13208	123	B2-U3-G2	12488	116	B2-U3-G3	13243	123	B2-U3-G2	13001	121	B4-U3-G2
TXF948-G3-KL-x-740-3	48	350	53	8135	153	B2-U3-G2	8057	151	B2-U3-G2	7617	143	B2-U3-G2	8078	152	B2-U3-G2	7930	149	B3-U2-G2
TXF948-G3-KL-x-740-5	48	530	79	11515	146	B2-U3-G2	11407	144	B2-U3-G2	10785	136	B2-U3-G2	11436	145	B2-U3-G2	11227	142	B4-U3-G2
TXF948-G3-KL-x-740-7	48	700	106	14553	138	B3-U3-G3	14413	136	B3-U3-G3	13627	129	B3-U3-G3	14451	137	B2-U3-G3	14187	134	B4-U3-G2
TXF964-G3-KL-x-740-3	64	350	70	10692	153	B2-U3-G2	10590	152	B2-U3-G2	10013	144	B2-U3-G2	10617	152	B2-U3-G2	10424	150	B4-U3-G2
TXF964-G3-KL-x-740-5	64	530	104	15140	146	B3-U3-G3	14995	144	B3-U3-G3	14178	136	B3-U3-G3	15034	145	B2-U3-G3	14760	142	B4-U3-G2
TXF964-G3-KL-x-740-7	64	700	140	19169	137	B3-U3-G3	18987	136	B3-U3-G3	17952	129	B3-U3-G3	19035	136	B3-U3-G3	18688	134	B5-U3-G3
TXF980-G3-KL-x-740-3	80	350	86	13224	154	B3-U3-G3	13098	152	B2-U3-G2	12384	144	B2-U3-G3	13131	153	B2-U3-G2	12892	150	B4-U3-G2
TXF980-G3-KL-x-740-5	80	530	130	18953	145	B3-U3-G3	18774	144	B3-U3-G3	17750	136	B3-U3-G4	18821	144	B3-U3-G3	18478	142	B5-U3-G3
TXF980-G3-KL-x-740-7	80	700	173	23628	136	B3-U3-G3	23404	135	B3-U3-G3	22129	128	B3-U3-G3	23464	136	B3-U3-G4	23037	133	B5-U3-G3

TXF9 Teardrop

Pendant

Dimensions



Flat glass

Height: 23 13/16" (60cm)
Width: 18 3/8" (47cm)
Max. EPA: 2.00 sq. ft.
Max. Weight: 25 lbs

Acrylic long globe

Height: 37 7/8" (96cm)
Width: 18 3/8" (46cm)
Max. EPA: 2.60 sq. ft.
Max. Weight: 32 lbs

Housing

The housing is constructed of low copper die-cast aluminum. All non-ferrous fasteners prevent corrosion and ensure longer life. The Cast neck or Pipe Threading mounting options and Flat Glass or Long Acrylic Lens options provide versatility in your designs.

Mounting

Cast Neck option (N) for use with clamp collar, or Threaded Pipe option (P) 1-1/2"-11.5 NPT pipe nipple for mounting to arm.

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

LED type Lumileds LUXEON T. 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 II, Type III, Type IV and Type V are 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 dimming compatible 0-10V. 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).

Driver Options

SRD: Sensor Ready Driver including SR communication (used for dimming and other functionalities), 24V auxiliary supply and a logical signal input (LSI) connected to the top NEMA twist lock receptacle.

SRD1: Sensor Ready Driver including SR communication (used for dimming and other functionalities) but with 24V auxiliary supply and a logical signal input (LSI) not connected to the top NEMA twist lock.

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

DALI: Pre-set driver compatible with the DALI logarithmic control system.

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

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.

TXF9 Teardrop

Pendant

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 64 LED@700mA is 82,000) 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.

LED products manufacturing standard

The electronic components sensitive to 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.

Vibration Resistance

Threaded Pipe option - Meets the ANSI C136.31 2001, 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.

IP Rating: The LED optics chamber is IP66 rated. The LED driver is IP66 rated.

Warranty: 5 year extended warranty.

Predicted Lumen Performance Data

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 hrs	>60,000 hrs	87%

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. L₇₀ is the predicted time when LED performance depreciates to 70% of initial lumen output.
3. Calculated per IESNA TM21-11. Published L₇₀ hours limited to 6 times actual LED test hours.

